AutoCommand® OEM Series

Remote Control Car Starter Installation Manual for Models 28624T and 28628

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PLEASE READ COMPLETELY BEFORE BEGINNING

Congratulations on your purchase of the AutoCommand® OEM Series Remote Car Starter. The AutoCommand® OEM Series Remote Car Starter system allows you to start the car by remote control from the comfort of your home or office in order to cool it down in the summer or heat it up in the winter.

AutoCommand® OEM Series is for **automatic transmission/fuel injected vehicles only**. It is an extremely sophisticated system with multiple built-in safety and security features.

AutoCommand® OEM Series Car Starter:

- **Will start your car by remote control, and run the heater, defroster, or air conditioner to warm up or cool down the car.**
- **Is designed to start the car if it is in park, and only if the hood is closed.**
- **Has Lock, Unlock and Trunk keyless entry features.**
- **Will attempt to start the car for up to six seconds, but no longer (to avoid damage to the starter motor). Should the car not start, or if it stalls after starting, the remote starter will make two further attempts to start it.**
- **Has alarm functions including starter kill which becomes active when the doors are locked with the remote control.**
- **Will not let the car be driven without the key in the ignition.**
- **Shuts itself off automatically after 10 or 15 minutes (programmable) if you forget to come out to your car.**
- **Will shut off if the brake pedal is pushed, the hood is opened, or the transmission is shifted out of park - unless the key is in the ignition and in the "run" position.**
- **Allows you to remove the key while leaving the car running with the doors locked for up to 10 or 15 minutes utilizing the Quick Stop™ Option. (See Separate User Tip Sheet)**
- **Starts the car automatically whenever the temperature drops below 0°F (-18°C), or if the battery voltage drops below 11 volts when the Cold Start™ Option is used. (See Separate User Tip Sheet)**
- **Has the "Daily Start™" feature which allows the vehicle to be started at the same time the following day. (See Separate User Tip Sheet)**
- **Is quality engineered and microprocessor controlled to provide many years of reliable use.**
- **Comes with a Limited Lifetime Warranty.**

Tools required to install the AutoCommand® OEM Series Unit:

Wire Cutters/Strippers

Electrical Tape

Soldering Iron

Screwdriver

Pliers

Drill with1/4"and 5/16" drill bits

Test meter

We highly recommend that all connections be soldered for reliability.

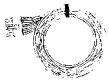
Parts List included with the AutoCommand® OEM Series Unit:

Remote Starter Receiver Module

Transmitter

Antenna

Siren (Model 28628 only)


Control Harness (10 position)

6 Power and Ignition wires

2 Relays with relay harnesses (Model 28628 only)

Shock Sensor (Model 28628 only)

Following parts included in plastic baggy

Alcohol Pad

Ring Terminal

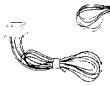
Green 30 A Fuse

Hood Pin Switch Set

On/Off Control Switch

2 Cable Ties

Plug-In LED


3 Pin Door Harness

Yellow Butt Connector

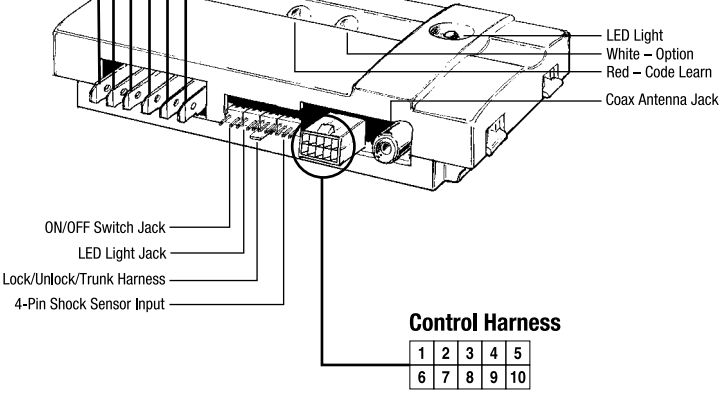
2 Protected by DesignTech Labels

Warning Label

Wiring Diagram

Power Harness

Color	Function	Circuit Type	Required
Pink	Power (+12V)	Input	Yes
White	Accessory	Relay Output	Yes
Yellow	Starter	Relay Output	Yes
Blue	Ignition 1	Relay Output	Yes
Green	Ignition 2	Relay Output	Consult Wiring Diagram
Black	Ground	Input	Yes



Control Harness

1	2	3	4	5
6	7	8	9	10

	Color	Function	Circuit Type	Required
1.	Yellow	Lights	Relay Output	No
2.	Blue	Horn	(–) 400 mA	No
3.	Brown	Accessory	(–) 400 mA	No
4.	Brown/White	Alarm Disable	(–) 400 mA	Consult Wiring Guide
5.	White/Black	Ignition 3	(–) 400 mA	Consult Wiring Guide
6.	Orange	Brake	(+) Input	Yes
7.	Purple	Hood	(–) Input	Yes
8.	Green	Tach	(–) Input	No
9.	Red/White	Alarm Input	(–) Input	No
10.	Red/Black	Diesel	(+/–) Input	No

*** For free vehicle specific wire information, consult our website at www.designtech-intl.com**

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WARNING

On cars with airbags, you may notice bright yellow tubes or harnesses marked SRS (Supplemental Restraint System) underneath the steering column area. DO NOT tamper with these wires in any way, to prevent personal injury and/or damage to the air bag system.

Battery gases are explosive.
Do not smoke while working near the car's battery.

Note: Some installers connect a battery charger to the vehicle's battery during installation. This is fine, but it must be removed before running the vehicle under remote starter control.

WARNING

All General Motors (GM), rear wheel drive vehicles built prior to 1995 with automatic transmissions and Dodge Dakota trucks (4 cylinder engines only) with automatic transmissions built prior to 1996 have a MECHANICAL TYPE of NEUTRAL SAFETY SWITCH. See important warning on the last page of these instructions.

CAUTION

When running the wires through the car's firewall, be sure to protect them from sharp metal edges and from hot surfaces on and around the engine.

INSTALLATION INSTRUCTIONS

1. Before You Start

Take time to read through the whole installation manual before beginning.

Always leave a window open to avoid locking your keys in your car.

IMPORTANT: After having read the entire manual, start the installation by putting the yellow WARNING STICKER in the engine compartment. Choose a surface that is clean and readily visible when the hood is open.

WARNING
This car is equipped with a remote control starting device.
Disable before working on car!

AVERTISSEMENT
Ce véhicule est équipé d'un systéme de démarrage a distance. Mettez-le hors fonction avant d'eflectuer toute opération d'entretien ou de réparation!

POWER & IGNITION HARNESS

The remote starter module will be installed under the dash once all wiring has been completed. **Do not mount the module at this time! You will need to check the red diagnostic LED light as the installation progresses**. Locate (or drill) a hole in the firewall to run the PURPLE and GREEN wires of the **Control Harness** and the PINK wire of the **Power Harness** into the engine compartment. The remaining short wires stay in the passenger area. Leave about a foot of the wire harness under the dash for ease of working and visual access to the diagnostic light.

The **Installation Information** section of www.designtech-intl.com is available 24 hours/day to provide you with free, up-to-date vehicle wiring information for your particular vehicle after you log in.

Note: Always connect the **PINK** and **BLACK** wires before connecting any of the other wires. Do not insert the fuse until Step 11.

2. Black Wire (16 AWG) – Ground

Connect the BLACK wire to a very good, clean chassis ground in the driver's kick panel area. Use the small ring terminal. (The thin metal bracing around or beneath the dash board is not always adequate.)

3. Pink Wire (12 AWG) – Power (+12 Volts)

Connect the ring terminal at the end of the short PINK wire to the +12 Volt terminal of the battery. Run the long PINK wire through the firewall of your vehicle. Join the remaining ends of the power wire together by soldering them. Tape with electrical tape to leave no exposed wires. Alternatively, you may wish to use the yellow butt connector, but we recommend soldering. Wait to insert the 30 amp green fuse into the holder until Step 11. As the power is first applied to the unit the red diagnostic LED light will blink once.

Note: Failure to properly install the fuse holder and 30 amp fuse to the PINK wire to the battery voids all product warranties.

Ignition Key Diagram for Steps 4-7
The vehicle's wires are found coming off of the key switch. Remove the panel under the steering column to access these wires.

4. Blue Wire (14 AWG) – Ignition 1

Connect the BLUE wire to the ignition 1 wire of your vehicle. This wire will measure +12 Volts on the test meter in the "run" **and** "start" position, and is off in the "lock/off" and "accessory" positions.

5. Green (14 AWG) – Ignition 2

Connect the GREEN wire to the Ignition 2 wire in the vehicle. The Ignition 2 wire can function in several different ways in your vehicle. It is important to understand how it works. The Ignition 2 wire will usually measure +12 Volts in the "run" position and is off (ground) in the "lock/off" and "accessory" positions. In certain vehicles, it may also show +12 Volts in the "Start" position or Ignition 2 may turn OFF during "Crank" and turn back ON after the starter disengages. Carefully note the function of the Ignition 2 wire. If the Ignition 2 turns OFF during "Crank", set Option #4 (section 24). If Ignition 2 stays ON during "Crank," no options need to be changed.

6. White Wire (14 AWG) – Accessory

Connect the WHITE wire to the accessory wire which is +12 Volts in the "run" and "accessory" position, but off in the "start" and "off" positions. In GM vehicles, connect the white wire to the orange wire that is hot in "run" only.

7. Yellow (14 AWG) – Starter

Connect the YELLOW wire to the starter wire. This wire will measure +12 Volts on the test meter in the "start" position only.

Note: Most Nissan vehicles have two starter wires. Connect both starter wires of the vehicle to the YELLOW start wire of the remote starter.

8A. Plug-In On/Off Switch

Mount the control switch so that it is easily accessible and so that the "ON" position is facing upward. Make sure there is enough clearance behind the mounted switch for the wire connections. Do not let the switch wires touch ground. Do not plug the switch into the unit until it is mounted first. Connection of this switch is mandatory. Use a 1/4" drill-bit for the mounting hole.

Plug the ON/OFF control switch into the module just to the right of the power wires. Turn the switch on.

8B. Plug-In LED Light

Drill a 5/16" hole in to the dash or panel to mount the LED light and plug the LED light plug into the red connector. Mounting the LED light is not mandatory but the LED light is used for alarm status, troubleshooting and programming options.

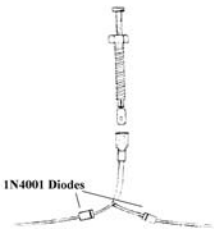
CONTROL HARNESS

ALL WIRES ARE THE SMALLER 18 AWG SIZE

9. Purple Wire – Hood Pin Switch – Control Harness

The hood pin switch MUST be installed with the remote starter. It prevents operation of the remote starter when the hood is open and is used to initialize the unit. Connect the PURPLE wire to the hood pin switch using the red connector.

Note: If you already have a hood pin switch which is being used by a car alarm system, you may share the wiring – but be sure to diode isolate each wire going to the hood pin switch with the bands of diodes pointing towards the pin switch as shown at right.



How to share a hood pin switch with an alarm

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10. Orange Wire – Brake Shut-off – Control Harness

Connect the ORANGE wire to the brake wire which receives +12 Volts when the brake pedal is depressed. **This wire must be connected**. It arms a critical safety feature which disables the remote starter when the brake pedal is depressed.

Note: In some cars, the ignition must be in the "on" position to test the power in the brake wire.

Note: If the Ignition 1 and Ignition 2 wires come on whenever the brake is depressed and the hood is open this just means you need to initialize the unit in section 11.

11. Initializing the Remote Starter

BEFORE THE UNIT WILL DO ANYTHING FOR THE FIRST TIME, YOU MUST INITIALIZE THE REMOTE STARTER

A. Insert the 30 amp fuse into the fuse holder on the large PINK wire.

B. Turn the control switch on.

C. The remote starter requires the installer to **open the hood** and then **press and hold the brake pedal**. Note: The ignition/dash lights will come on if the unit is not initialized.

D. While depressing the brake (with the engine off and the hood open) turn the ignition key to the "RUN" (not "start") position.

E. Put the car in "DRIVE" from the "PARK" position.

F. Put the car back in "PARK" and release the brake.

G. Turn the key off and remove the key.

Note: Confirm initialization by turning the ON/OFF control switch "OFF" and then "ON". The red LED light on the remote start module will flash once immediately as the switch is flipped from the "OFF" to the "ON" position.

If the red LED light did not flash when the control switch was turned "ON" REPEAT STEPS A THROUGH G. See the colored Trouble Shooting Sheets if necessary.

12A. Green Wire – Tach Input – Control Harness

The remote starter has **two ways** of monitoring the car during the starting process. Both ways will ensure a clean, accurate start. **Read about both methods before deciding which one to use. Normally you should try the "No Tach™" method first.**

"No Tach™" Starting

This starting method **does not** require the connection of the GREEN tach wire. This method will start the car by reading the car's voltage before attempting to start, and then looking for a voltage increase when the alternator kicks in. This feature automatically takes into account voltage, temperature, and the time since the vehicle was last run. The "No-Tach™" starting is preset at the factory and you can skip step 12B if you would like to use it. Note that if the vehicle is hard to start, set Option #3 (section 24) for "extended crank."

Tachometer sensing

If the vehicle is generally hard to start (i.e. requiring a cranking time of more than 1 second) you will get more accurate starting with the tachometer sensing starting method. This method starts the car by reading the engine speed (tach) information from a wire under the hood. If you choose tachometer sensing, connect the GREEN (18 awg) wire to the car's tach wire under the hood (normally the negative side of the coil or tach output of coil pack). After you have connected the GREEN wire, you need to teach the remote starter the vehicle's tach rate at idle. Proceed to step 12B.

Note: You must have already initialized the remote starter from Step 11.

12B. Tach Rate Learning

Note: Only use if the tachometer sensing method is chosen.

A. Connect the GREEN wire to the car's tach wire under the hood.

B. Turn the On/Off control switch to the "OFF" position. Wait 5 seconds for the red LED light flashes to stop.

C. Program the unit to the tach mode by pushing the White "option" button once and watching the red LED light flash. Now push the start button on the transmitter for a second until you see the red LED light flash again. You are now in TACH mode. (If the red LED light flashed twice or sometimes three times – simply push the transmitter button again until you get only one flash).

D. Wait 5 seconds for the red LED light to flash 3 times.

E. Turn the On/Off control switch back to the "ON" position

F. Start the car with the key and let it get to a *normal* idle. Do not press on the gas pedal.

G. Push the red "code learn" button for a second.

H. Watch the red LED light. It will come on after 3 or 4 seconds, indicating that the tach idle rate has been learned.

I. Watch that the LED light remains on as the vehicle is running and turns off when you rev the engine RPMs to twice the idle rate. The LED light must go out when you rev the engine to about twice the idle rate to confirm correct tach learning.

J. Turn the key to the "Lock/Off" position.

K. Turn the ON/OFF control switch off and the red LED light will go out. You are now finished.

Note: Once these steps are complete – you cannot use the LED to confirm tach again. You can however repeat the above steps to learn tach over again at any time.

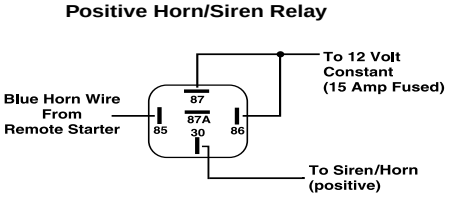
OPTIONAL STEPS

13. Yellow Wire – Headlights/Parking Lights – Control Harness

Connection of the YELLOW wire allows you to activate the **low beam headlights or parking lights for remote start and lock status**. After the remote starter has started the car, the lights will remain on until the remote starter shuts off after 10 minutes, or when the brake pedal is pushed, or when the car is put into gear. **This is a relay +12 Volts output**. Connect the YELLOW wire to the wire that has power when the lights are on.

14. Blue – Horn/Siren – Control Harness

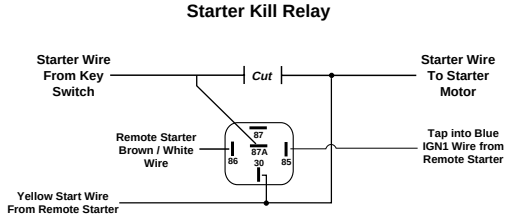
The BLUE wire signals the horn to honk (or siren to chirp) once each time the remote starter starts the vehicle and each time the locks are locked or unlocked. Connect the blue wire to the factory horn wire which is often found running down the steering column. It will normally show +12 Volts at rest and the voltage will disappear when the horn is honked. **This is a 400 mA transistor ground output which MUST drive a relay if using a siren or positively triggered horn**. Option #11 (section 24) must be changed when using a siren.



15. Brown/White – Alarm Disable/Starter Kill – Control Harness

The BROWN/WHITE wire is **Alarm Disable**, which will give out a quick negative pulse just before starting the vehicle. This wire can be used to turn off the factory alarm system in vehicles which have them. In most vehicles, this wire is located in the driver's kick panel.

Using Option #19 (section 24) you can set this to **Starter Kill**. This option prevents the vehicle from being started with the key when the alarm is armed. It is also active whenever the vehicle is running under remote starter control to provide anti-grind protection.



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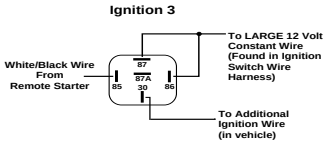
16. White/Black Wire – Ignition #3 – Control Harness

The WHITE/BLACK wire, is a ground output that acts just like the Ignition 1 or Ignition 2 relay outputs (active in the "run" and "crank" positions). **This wire is a 400 mA negative transistor output and MUST be set up to power a relay** (not included). It can be used to power the third ignition wire at the key (necessary for most Ford vehicles).



This is the wire that can also be used to bypass a passive vehicle anti-theft system by hooking it up to the Universal Bypass Module. See the Factory Anti-Theft System section at the end of these instructions.

17A. Yellow and White – Keyless Entry Wires – 3 Wire Harness

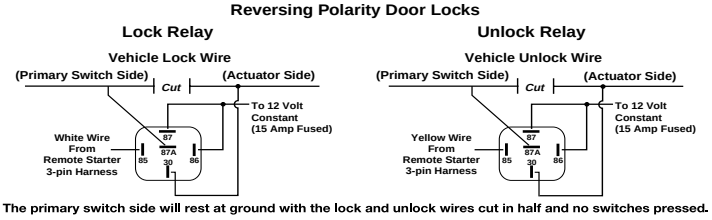
The wires function as follows:

YELLOW	Negative Trigger – Unlock	Positive Trigger – Lock
WHITE	Negative Trigger – Lock	Positive Trigger – Unlock

Determine the polarity of your door lock system by using a test meter. For NEGATIVE locks (the lock wire sees a ground signal briefly as the electric locks are locked) – connect the YELLOW wire to the Unlock wire and the WHITE wire to the Lock wire.

For POSITIVE locks (the lock wire sees a +12 volt signal briefly as the electric locks are locked but **does not see ground** when they are inactive) connect the YELLOW wire to the Lock wire and the WHITE wire to the Unlock wire.

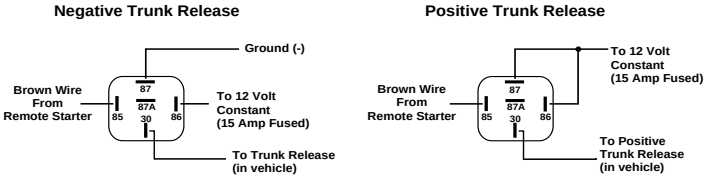
For REVERSING POLARITY (the lock wires sees a +12 volt signal briefly as the electric locks are locked and **sees a ground** signal when they are inactive) follow the diagram below:



Most VACUUM operated door lock systems require Option #18 (section 24) for Long locks to be set.

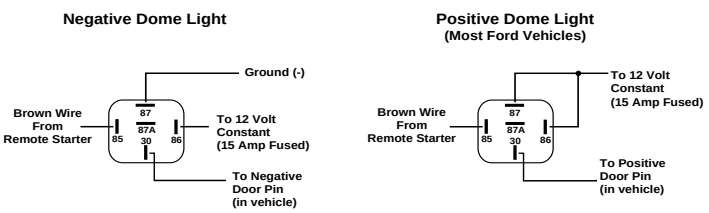
17B. Green Wire – Trunk Release – 3 Wire Harness

The GREEN wire is the Trunk Release output which gives out a transistor ground output when the unlock button is held for 4 seconds. **Again, this is a 400 mA transistor ground output which MUST drive a relay** (not included).



18. Brown Wire – Accessory Pulse/Dome Light – Control Harness

The BROWN wire is the Accessory Pulse output which gives out a momentary, transistor ground output 10 seconds after the vehicle is remotely started. This is important in some vehicles to control the defroster or to control the GM R.A.P. system. **Again, this is a 400 mA transistor ground output which MUST drive a relay** (not included).



This BROWN wire can also control a relay for Dome Light activation. When Option #20 (section 24) is changed, this BROWN wire causes the dome light to turn on for 25 seconds every time the doors are unlocked with the transmitter.

19. Red/White Wire – Door Pin Alarm Input – Control Harness

The RED/WHITE wire is the Door Pin Alarm Input. This wire will accept any input that supplies a negative (ground) when activated. (Most door pins go to ground when the door is open, +12 Volts when closed.)

Most Ford vehicles are positive door pins that switch to +12 Volts when opened, you will need to reverse the polarity before connecting to this RED/WHITE wire. Change Option #23 (section 24) Negative/Positive Door Pin Switch.

The alarm is "Last door arming." You should diode isolate the inputs of two or more sensors on the same input wire.

If you choose not to use this alarm feature then permanently ground this wire or program "No Alarm" Option #24 (section 24).

20. Red/Black Wire Diesel "wait to start" Control Harness

This wire is only used in diesel vehicle applications – and is optional. This wire can be hooked up to the "wait to start" light's switched wire behind the dash. If Option #9 (section 24) is set, this wire will feed information to the remote starter as to when to crank the vehicle over. This wire is not polarity sensitive.

REQUIRED FINAL STEPS

Note: You must have hooked up all required wires and completed Initialization (Step 11) to proceed forward.

21. Trying the Unit Out

WARNING: Be prepared to apply the brake during this testing.

A. Close the hood and fully apply the emergency brake

B. Place the vehicle in Park.

C. Turn the On/Off switch off then on – the red LED light will flash once.

D. Once all the wiring is checked and is correct, press the Start button on the transmitter.

E. The car should start and continue to run for ten minutes. Make sure that the engine shuts down if the car is shifted out of park, the hood is opened, the brake is pressed or the start button is pushed again. If the car does not start, see the Code Learning section under Special Cases.

22. The Antenna

Feed the antenna around under the dash and up the inside of the right or left windshield post and over the top of the windshield. Clean the windshield with the alcohol pad provided for maximum adhesion. Mount the last eight inches of the antenna behind the rear view mirror. The more exposed the end of the antenna is, the better the range performance. Now plug the end of the antenna into the remote starter module. **In most vehicles you will get better range performance if the antenna is pointing vertically downward from the top of the windshield**.

Note: <u>The wiring section of the installation is now complete.</u> Be sure to cap all unused wires so as to prevent short circuits, and mount the module securely under the dash. When tying up and mounting the unit, be sure to avoid any moving parts (steering column, pedals) and sharp edges.

23. Trouble Shooting with the Self Diagnostics

The remote starter contains a built in diagnostic routine that will indicate why the unit started or why the unit turned off the car the last time that the unit was used.

To activate the diagnostic mode for **why it turned off**, simply turn the On/Off control switch to the "OFF" position. In a few seconds, the red LED light on the module will flash 1 to 12 times to identify the problem. See the chart on the next page for an explanation of the flashes:

1 flash 10/15 minute time out. Unit should be fine. Make sure transmitter is working properly.

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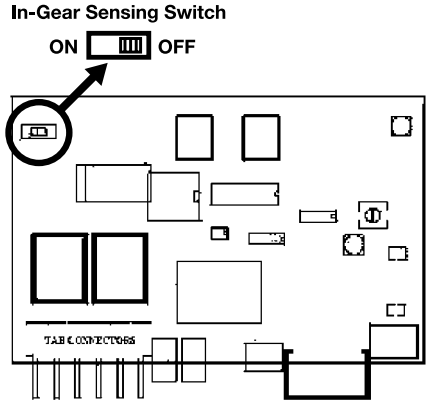
2 flashes Unit turned off because Brake or Hood was activated. Check to make sure the hood pin switch is depressed when the hood is closed and the correct brake wire is hooked up.

3 flashes No Tach or Stalled. Review section 12 and make sure the no tach/tach wire option is programmed correctly.

4 flashes Received another remote input from the transmitter

5 flashes Transmission was shifted into gear. Move the In-Gear switch inside the receiver module to the OFF position (see diagram below for location of In-Gear switch inside module case).



6 flashes Low battery voltage, or may be missing an ignition wire which powers up the alternator

7 flashes Alarm Input triggered

8 flashes Over current – One of the 400 mA (-) transistor outputs (Accessory Pulse, Alarm Disarm, Starter kill, lock, unlock, horn, lights, trunk, or Ignition 3) of the control or 3 pin harness is drawing too much current. Make sure to use a relay where necessary.

12 flashes The Control Switch was turned off while the starter was running.

For reasons **why it last started**, simply put your foot on the brake while you turn the control switch OFF. Keep holding the brake down until the flashes start. The codes are as follows:

1 flash The unit has not started yet since it was last powered up.

2 flashes Received a radio signal from the transmitter to start.

3 flashes N/A

4 flashes Temp reached 0° F in vacation mode.

5 flashes Voltage reached 11 volts in Vacation Mode.

6 flashes Received a start command from the remote input RED/BLACK wire.

7 flashes Started from 24 hour Daily Start feature.

24A. Setting Program Features

The remote starter unit has many special features available. You will not need to use these special features in most situations. The factory settings will operate most vehicles. **You must turn the On/Off control switch to the "OFF" position to program any features**.

Note: When turning off this control switch, the red LED light will flash a few times, giving the diagnostic code described in section 23. Wait a few seconds for it to finish before programming your new Options.

Feature Number	Factory Setting (2 flashes)	Option (1 flash)
1	"No-Tach"	Tach Mode
2	10 Min. Run Time	15 Min. Run Time
3	Normal Crank	Extended Crank
4	Normal	IGN 2 not active during crank
5	Normal Voltage Metering	Ignore Voltage Metering
6	Gasoline vehicles	Diesel vehicles
7	**"Enable" feature**	**No "Enable"**
8	Normal	Daytime Running Lights
9	Normal	Diesel "Wait to Start"
10	1 sec. alarm disarm pulse	0.45 sec. Alarm disarm pulse
11	Horn Pulsing	Siren Constant
12	Chirp with Locks	Silent lock/Unlock/Start
13	Active	Passive Arming
14	Normal	Lock Follow ignition
15	Normal	Unlock Follow ignition
16	Normal	Double Pulse Lock
17	Normal	Double Pulse Unlock
18	Short Locks	Long Locks
19	Alarm Disable	Starter Kill
20	Accessary Pulse	Dome Light
21	N/A	N/A
22	N/A	N/A
23	Negative Door Pin	Positive Door Pin Switch
24	Alarm Mode	No Alarm Mode
25	-18½C/0½F	-25½C/-13½F
26	Normal 3-Hour	5-Hour Interval
27	Normal	Auto Rearm
28	Normal	Silent Lock/Unlock Only
29	N/A	N/A
30	N/A	N/A
31		Reset All Options

24B. Program Features Descriptions

Option#1 No-Tach Tach Mode
This option sets the starting method. The factory setting uses "No-Tach" starting. If you wish to use the tach to start, follow the instructions in the Tach Rate Learning (section 12B).

Option#2 10 Min. Run Time 15 Min. Run Time
This option gives you a choice of run times.

Option#3 Normal Crank Extended Crank
This option will add 50% more crank time to the NoTach™ starting feature.

Option#4 Normal IGN 2 not active during Crank
This option will turn off the Ignition 2 output (thick GREEN wire) during cranking. It is used to exactly match the remote starter with the ignition key function.

Option#5 Normal Voltage Metering Ignore Voltage Metering
This option is used in the "No-Tach" starting method for some diesel vehicles or vehicles with weak batteries and/or poorly performing altenators.

Option#6 Gasoline Vehicles Diesel Vehicles
This option must be activated when installing on a diesel vehicle.

Option#7 "Enable" Feature No "Enable"
This option cancels the "enable" mode safety feature. The "enable" mode requires that the driver toggle the ON/OFF control switch "OFF" then "ON" each time the driver removes the key from the ignition in order to "enable" the vehicle for remote starter control. This feature guards against undesired starting of the vehicle by remote control. You must keep this option as enable on all GM rear wheel drive and Dodge Dakota vehicles manufactured prior to 1996.

Option#8 Normal Daytime Running Lights
This option will automatically turn the headlights on (for safety) about 10 seconds after it sees the key in the ignition position – and automatically turn the headlights off when the key is removed from the ignition.

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Option #9 **Normal** **Diesel "Wait to Start"**

This option will control the time before cranking the diesel vehicle by looking at the "wait to start" light of the vehicle. Simply hook the RED/BLACK Input wire of section 20 up to the wire behind the "wait to start" light. Also set Option #6 (section 24) for diesel vehicles.

Option #10 **1 sec. Alarm Disarm Pulse** **0.45 sec. Alarm Disarm Pulse**

This option shortens the Alarm Disarm Pulse from 1 second to 0.45 second. This feature is very useful with some Dodge/Chrysler vehicles that use a multiplexed system to disarm the alarm and unlock the doors with the same wire. Using this feature should eliminate the need to relock the doors after the alarm has been disarmed and the vehicle is remotely started.

Option #11 **Horn Pulsing** **Siren Constant**

This option changes the thin BLUE wire from pulsing output for horn to constant output for a siren.

Option #12 **Chirp with Locks** **Silent lock/Unlock/Start**

This option will eliminate the chirp with Start, Lock and Unlock.

Option #13 **Active Arming** **Passive Arming**

The factory setting of Active Arming requires the owner to actively arm the car with the remote control. Choosing the option of Passive Arming will cause the vehicle to automatically arm after the key is removed and the door is closed.

Option #14 **Normal** **Lock Follow Ignition**

Selecting this option will automatically lock the doors when the key is turned on, doors closed and the brake is depressed.

Option #15 **Normal** **Unlock Follow Ignition**

Selecting this option will automatically unlock doors when key is removed from ignition.

Option #16 **Normal** **Double Pulse Lock**

This option will pulse the lock output wire twice instead of once for normal mode.

Option #17 **Normal** **Double Pulse Unlock**

This option will pulse the unlock output wire twice instead of once for normal mode.

Option #18 **Short lock pulse** **Long lock pulse**

This option will increase the door lock pulse time from 0.6 second to 3 seconds for vehicles with vacuum locking systems (older European vehicles).

Option #19 **Alarm Disable** **Starter Kill**

The factory setting of Alarm Disable will give you a quick pulse whenever the transmitter unlocks the doors or the transmitter is used to start the vehicle. The Starter Kill option comes on and stays on whenever the remote starter is running or the alarm is armed. This wire controls a relay which opens up the path of the starter wire (refer to section 15).

Option #20 **Accessory Pulse** **Dome Lamp**

Accessory pulse puts out a brief pulse output after the remote starter starts or stops the vehicle. When set, this output can be used to turn on a defroster that requires a momentary pulse or could be used to control GM R.A.P. (retained accessory power) output. Dome lamp option will turn this output on when you unlock the door for 25 seconds. (Refer to section 18).

Option #23 **Negative Door Pin** **Positive Door Pin Switch**

This option changes the polarity of RED/WHITE alarm input wire. (Most Ford vehicles use a positive door pin switch.)

Option #24 **Alarm** **No Alarm**

This feature can disable all alarm functions if the alarm features are not desired.

Option #25 **-18½C/0½F** **-25½C/-13½F**

This option changes the start temperature for the Vacation Option.

Option #26 **Normal 3-Hour** **5-Hour Interval**

This option changes the minimum wait time between starts for the Vacation Option.

Option #27 **Normal** **Auto Rearm**

This option will automatically relock the doors and rearm the alarm if the doors are not physically opened within 2 minutes of unlocking and disarming the alarm with the transmitter.

Option #28 **Normal** **Silent Lock/Unlock Only**

This option will remove the notification chirps for lock and unlock only. The unit will still chirp for remote start.

Option #31 **Reset all Options**

This option resets all options back to the factory settings.

PROGRAMMING AN OPTION

If you want the factory setting, DO NOTHING and skip this section. If you want to change one or more of the features, TURN THE ON/OFF CONTROL SWITCH TO THE "OFF" POSITION. **Wait for the red LED light to stop flashing**, then continue with the following procedures:

A. **For options 1-9:** Push the white code button on the remote start module. Each time you push the button the red LED light will flash 1 to 9 times signifying at which feature you are (press it once, the LED light flashes once. Press it again and it will flash two times. Press it again and it will flash three times, etc., to show what feature you are at).

For options 10-19: Push the red code button on the remote start module. You will see the LED light flash a long blink. This is option 10. You can scroll to option 11 by pressing the white button once – you will see a long blink followed by one short blink. You can scroll to option 12 by pushing the white button again – one long and two short blinks brings you to option 12.

For options 20-29: Push the red code button twice to get the two long blinks – you are now at option 20. Push the white button to jump ahead to option 21 – two long blinks and one short blink. Push three more times to get to option 24 – two long and four short blinks.

For options 30-31: Push the red code button three times to get three long blinks – you are now at option 30. Push the white button once to jump to option 31 (three long blinks and one short blink).

B. When you are at the feature level you desire, **push the start button on the transmitter for one second** and the red LED light will flash **once to signify you are at the Option setting**. You can push the transmitter button again and it will flash **twice to signify you are at the Factory setting**. Push the transmitter button again and you will go back to the Option setting.

C. You can choose to change another feature by starting over again at Step A. After six seconds, the remote starter automatically exits the programming mode (three LED light flashes).

D. When finished – switch the Control Switch back ON. The red LED light will flash once.

25. External shock sensor hook up (optional):

Plug the shock sensor unit into the 4 wire connector on the front side of the remote start module. Use one or two cable ties to tightly fasten the shock sensor unit to the steering column of the vehicle. **Make sure that the sensor does not affect the driver's ability to steer the vehicle**. This placement gives the best overall coverage for a vehicle. Adjust the screw(s) so that a hard impact on the vehicle triggers the full alarm and light impacts just trigger the warn away. (This input may not work with all types of alarm sensors.)

4-Pin External Alarm Input

1. Warn Away
2. Full Alarm
3. Ground
4. +12 Volts Constant

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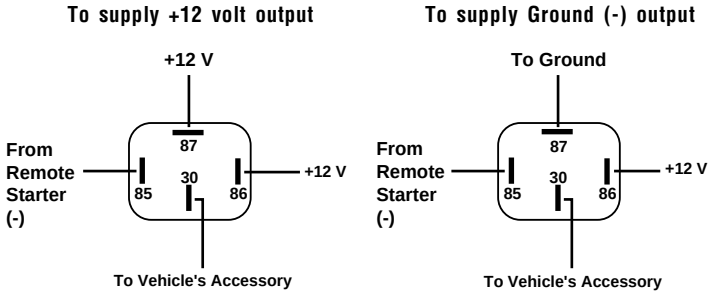
SPECIAL CASES

1. How to Use a Relay

Many of the optional steps require a relay to be hooked up. The most common relay used for this type application is the Bosch type relay (Radio Shack Cat.# 275-226). Use the diagram below for a typical hookup. If you have another relay then you need to know that pins 85 and 86 in this diagram relate to the coils of the relay. Pin 30 is the 'common', and pin 87 is the 'normally open' contact. If your relay has a pin 87A in the middle it is the normally closed contact and may or may not be used in the application. (The diagram below is typical for an Ignition 3 or trunk application).



2. Code Learning

Your transmitter is factory coded to the remote starter module with over 16,000,000 different codes. The remote starter module can learn the codes of up to 4 different transmitters. If you want to add additional transmitters to the receiver or **if it does not respond to your transmitter** – follow the steps below to teach the receiver the transmitter code(s):

A. Turn the Control Switch ON.

B. Push the red "code learn" button to the right of the red LED light. The red LED light and the dash lights come on for a second. (The vehicle's ignition and accessory wires come on).

C. While holding the transmitter at least three feet from the module, hold down the Start button (on a five button transmitter) or the lock/unlock button (on a three button transmitter) until the red LED light and the dash lights come on again for a second. The module has now learned the transmitter code. Release the transmitter button.

D. To learn additional transmitters (up to 3 more), immediately (within 5 seconds) push the Start button (on a five button transmitter) or the lock/unlock button (on a three button transmitter) on another transmitter for a few seconds until the red LED light and the dash lights come on for a second again.

E. 5 seconds after the last time the transmitter was learned the unit exits the code-learning stage. (The red LED light, ignition and accessories flash 4 times).

Note: Teaching the module a new transmitter code will erase all previous codes - so all transmitters must be taught. You have only 5 seconds between transmitters to begin teaching a new transmitter.

3. Diesel Vehicles

For the most relible starting, hook up the RED/BLACK wire referenced in section 20.

For difficult starting diesels connect and learn the tach (section 12) as well as the wait-to-start RED/BLACK wire (section 20). Set Option #6 (section 24) for diesel.

For most diesel vehicles, you can start the vehicle without needing to hook up a tach wire. The following table provides the mandatory option settings for "no-tach" operation in diesel vehicles. (Use the Chrysler settings for all other diesel vehicles.)

	Option #6 Diesel Engine	Option #3 Extended Crank	Option #5 Ignore Meter
Chrysler	■	■	
Ford	■	■	■
Chevrolet	■	■	■

4. Factory Anti-Theft Systems

Many vehicles come with an anti-theft system that must be temporarily bypassed for the vehicle to be remotely started. Some systems use a resistor in the key. Others use a transponder – a small device in the key that communicates a high security code to the vehicle before the vehicle will successfully start.

Check the list of vehicles and the types of security systems that follows. If your vehicle is listed, your vehicle has an Anti-Theft System that the remote starter MUST temporarily bypass in order to start the vehicle. More information about the factory anti-theft systems and vehicle wire colors can be found at the DesignTech Website www.designtech-intl.com.

The Universal Alarm Bypass Module (model numbers 20402 or 29402) will temporarily bypass the factory anti-theft systems when using the remote starter. Check with your local retailer/installer to purchase this Universal Alarm Bypass Module.

List of vehicles and the types of factory anti-theft systems:

Vehicle:	System:
Acura 3.2TL 98+	Transponder
Audi A4,A6,A8 98+	Transponder
Acura CL 97+	Transponder
Acura Integra	Transponder
Acura NSX	Transponder
Acura RL 98+	Transponder
BMW (all 97 +)	Transponder
Buick LeSabre 90 - 01	VATS
Buick Park Ave 91 - 96	VATS
Buick Park Ave 97+	Transponder
Buick Regal 93 -96	VATS
Buick Rendez Vous	Transponder
Buick Riviera 93 -96	VATS
Buick Roadmaster 93 - 96	VATS
Buick Skylark 96-98	Passlock
Cadillac Allante	VATS
Cadillac Brougham	VATS
Cadillac Catera 97+	Transponder
Cadillac DeVille 92 - 98	VATS
Cadillac DeVille 99+	Transponder
Cadillac Eldorado 89 - 98	VATS
Cadillac Eldorado 99+	Transponder
Cadillac Escalade 00+	Passlock
Cadillac Fleetwood 90 - 96	VATS
Cadillac Seville 90 - 98	VATS
Cadillac Seville 99+	Transponder
Chevrolet Astro Van 98+	Passlock II
Chevrolet Avalanche 01	Passlock
Chevrolet Blazer 98+	Passlock II
Chevrolet Camaro 86 +	VATS
Chevrolet Cavalier 96-99	Passlock
Chevrolet Cavalier 2000+	PasslockII
Chevrolet Corvette 88 +	VATS
Chevrolet Express 97+	Passlock
Chevrolet Impala 2000+	Passlock II
Chevrolet Lumina 96 -99	VATS
Chevrolet Malibu 97 -01	Passlock II
Chevrolet Monte Carlo 96-99	VATS
Chevrolet Monte Carlo 00+	Passlock II
Chevrolet Pickup Full-size 98+	Passlock II
Chevrolet S-10 98+	Passlock II
Chevrolet Silverado HD 01	PasslockII
Chevrolet SSR 01	Passlock
Chevrolet Suburban 98+	Passlock II
Chevrolet Tahoe 98+	Passlock II
Chevrolet Trailblazer 01+	PasslockII
Chevrolet Van 98+	Passlock II
Chevrolet Venture 99+	Transponder
Chrysler Concorde 98+	Transponder
Chrysler LHS 99+	Transponder
Chrysler PT Cruiser 00+	Transponder
Chrysler Sebring Conv. 98+	Transponder
Daewoo Leganza	Transponder
Dodge 300 M 99+	Transponder
Dodge Intrepid 98+	Transponder
Dodge Neon 00+	Transponder
Ford Contour 97 +	Transponder
Ford Crown Victoria 98+ (option)	Transponder
Ford Excursion 01+	Transponder
Ford Expedition 97+	Transponder
Ford Explorer 98+	Transponder
Ford Focus 01+	Transponder
Ford Mustang 98+	Transponder
Ford Pick Up (optional)	Transponder
Ford Ranger 99+(optional)	Transponder
Ford Sport Trac 01	Transponder
Ford Taurus 96 +	Transponder
Ford Windstar 2000 +	Transponder
GMC Envoy 01+	Passlock II
GMC Jimmy 98+	Passlock II
GMC Safari 98+	Passlock II
GMC Denali 99+	Passlock II

Vehicle:	System:
GMC Sierra	Passlock II
GMC Sonoma 98 +	Passlock II
GMC Suburban 98+	Passlock II
GMC Yukon 98+	Passlock II
Honda Accord 98+	Transponder
Honda Odyssey 98+	Transponder
Honda Prelude 98+	Transponder
Honda S2000	Transponder
Infiniti I30 98+	Transponder
Infiniti Q45 98+	Transponder
Infiniti QX4	Transponder
Jaguar (all 98+)	Transponder
Isuzu Hombre 98+	Passlock II
Jeep Grand Cherokee 99+	Transponder
Jeep Liberty	Transponder
Jeep TJ (Wrangler) 99+	Transponder
Lexus (all 97+)	Transponder
Lincoln Blackwood	Transponder
Lincoln Continental 97+	Transponder
Lincoln LS 2000+	Transponder
Lincoln Mark VIII 97+	Transponder
Lincoln Navigator 97+	Transponder
Lincoln Town Car 97+	Transponder
Mazda Tribute	Transponder
Mercedes (all 97+)	Transponder
Mercury Cougar 99+	Transponder
Mercury Grand Marquis	Transponder
Mercury Mountaineer 98 +	Transponder
Mercury Mystique 97+	Transponder
Mercury Sable 96+	Transponder
Mini Cooper 02	Transponder
Mitsubishi Eclipse	Transponder
Mitsubishi Galant	Transponder
Nissan Frontier S/C	Transponder
Nissan Maxima 98+	Transponder
Oldsmobile Achieva 95	Passlock I
Oldsmobile Achieva 96+	Passlock II
Oldsmobile Alero 99+	Passlock II
Oldsmobile Aurora	VATS
Oldsmobile Bravada 98	Passlock II
Oldsmobile Cutlass 97+	Passlock II
Oldsmobile Eighty-Eight	VATS
Oldsmobile Intrique 98+	Passlock II
Oldsmobile Ninty-Eight	VATS
Oldsmobile Silhoutte 99	Transponder
Pontiac Aztek 01	Transponder
Pontiac Bonneville 89+	VATS
Pontiac Firebird 88+	VATS
Pontiac Grand Am 96 - 98	Passlock
Pontiac Grand Am 99+	Passlock II
Pontiac Grand Prix 92 – 96	VATS
Pontiac Grand Prix 97+	Transponder
Pontiac Montana 99+	Transponder
Pontiac Sunfire 96-99	Passlock I
Pontiac Sunfire 2000+	Passlock II
Porsche (all 97+)	Transponder
Saab (all 97+)	Transponder
Saturn 97-99	Factory Alarm
Saturn 00+	Transponder
Subaru Legacy 00+	Transponder
Subaru Outback 00+	Transponder
Toyota Avalon 98+	Transponder
Toyota Camry 98+	Transponder
Toyota Highlander 01+	Transponder
Toyota Land Cruiser 98+	Transponder
Toyota Solara 99 +	Transponder
Toyota Supra 98+	Transponder
Volkswagen Beetle 98+	Transponder
Volkswagen Golf 98+	Transponder
Volkswagen Passat 98+	Transponder
Volvo (all 98+)	Transponder

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NOTICE to Installers of Remote Vehicle Starters

CAUTION

We DO NOT recommend installing ANY remote starter in the following vehicles: Audi 1998+, BMW 1998+, Jaguar 1998+, Land Rover 1998+, Mercedes 1998+, Range Rover 1998+, Volvo 1999+

As with any aftermarket installation, please research and learn as much as you can about the vehicle before you start the install.

WARNING

All General Motors (GM) vehicles built prior to 1995 with automatic transmissions and all Dodge Dakota trucks with automatic transmissions built prior to 1996 have a MECHANICAL type of NEUTRAL SAFETY SWITCH. All vehicles built after 1996 use an electrical type of neutral safety switch.

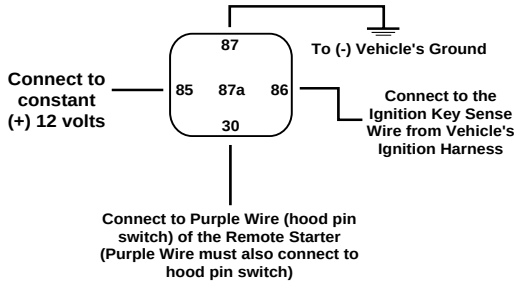
Applying +12 volts to the starter wire on any vehicle vehicle using a mechanical neutral safety switch will engage the vehicle's starter, regardless of the shifter's position. When the shifter is in Park or Neutral, the vehicle will just start up normally. If the vehicle is accidentally left in gear and power is applied to the start wire, such as by a remote starter, **the vehicle will lurch forward or back as it attempts to start.**

To test if your GM or Dodge vehicle is using a mechanical neutral safety switch system, you will only be able to remove the key from the ignition switch when the shifter is in the Park or Neutral position.

To prevent this problem from occurring when installing a DesignTech International remote starter on a GM vehicle or Dodge Dakota built prior to 1996:

1. You must leave the Enable Feature (option #7 in the factory setting). This is a safety feature that requires the user to turn the control switch OFF and then ON again each time they exit the vehicle in order for the unit to be operational. This feature will ensure that the user of the vehicle with the remote starter installed has made a conscious decision to allow the remote starter to start the vehicle the next time the transmitter button is depressed.

2. You must use the relay drawing below to create a circuit that will prevent the remote starter on these GM and Dodge vehicles from starting the vehicle unless the key is completely removed from the ignition switch.


87
To (-) Vehicle's Ground
Connect to constant (+) 12 volts
85
87a
86
30
Connect to the Ignition Key Sense Wire from Vehicle's Ignition Harness
Connect to Purple Wire (hood pin switch) of the Remote Starter (Purple Wire must also connect to hood pin switch)

As with any aftermarket installation, please research and learn as much as you can about the vehicle before you start the install. Instructions, technical tips and detailed wiring information is available on **www.designtech-intl.com**. Please refer to the information on the web site before starting ANY install or call Directed Electronics Technical Support at (800) 876-0800.

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The company behind this system is Directed Electronics, Inc.

Since its inception, Directed Electronics has had one purpose, to provide consumers with the finest vehicle security and car stereo products and accessories available. The recipient of nearly 100 patents and Innovations Awards in the field of advanced electronic technology, DIRECTED is ISO 9001 registered.

Quality Directed Electronics products are sold and serviced throughout North America and around the world.

Call **(800) 876-0800** for more information about our products and services.

Directed Electronics, Inc. is an ISO 9001 registered company

Directed Electronics is committed to delivering world class quality products and services that excite and delight our customers.

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06-05

USER TIPS AND NOTES

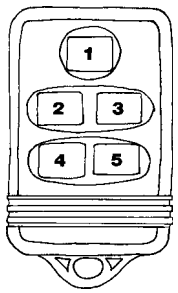
v5.3

The Remote Car Starter must be "enabled" each time the driver has finished driving and taken out the key in order for the unit to start the vehicle remotely. After the key has been removed, you must turn OFF the control switch and then turn it back ON again while no key is in the ignition. This "control switch" or "set switch" prevents unauthorized starting of the car by someone unfamiliar with the system who may be using the vehicle. If you forget to set the switch, it may also be activated by pushing the transmitter and holding the button down for ten seconds. To eliminate the need for this, see **Option #7**.

The AutoCommand® Remote Car Starter will turn the car off if the driver does not insert and turn the key within 10 or 15 minutes. After the AutoCommand® Remote Car Starter has started your car, simply put in the key and turn it to the "run" or "on" ignition position (not the crank position) to drive away.

The AutoCommand® Remote Car Starter has numerous safety and security features that make it difficult to steal your car without the key being in the ignition. Putting your car in gear, tapping the brake pedal or opening the hood will turn the unit off unless your key is in the ignition and turned to the "run" or "on" position.

If all features are hooked up, your transmitter will function as follows:



Button 1: Do not push for your first 'main' vehicle
Once: To operate vehicle #2 - then any of the 4 buttons (LED flashes red and green)
Again: For vehicle #3 - then any of the 4 buttons (LED flashes red)
Again: For vehicle #4 - then any of the 4 buttons (LED flashes green)

Button 2: Once: Start the car with all accessories left on
Again: Stop the car

Button 3: Once: Turn on headlights for 30 seconds
Again: Turn off headlights
Hold down for 4 seconds for PANIC mode (45 seconds long)

Button 4: Lock the doors / arm the alarm

Button 5: Unlock the doors / disarm alarm (if you get 4 chirps – that means the alarm was triggered while you were away)
Hold down for 4 seconds for Trunk

The LED on the transmitter will display 3 different colors - Red for button #2, Yellow for button #3, and Green for buttons #4 and #5. The transmitter is powered by a long life lithium battery (CR 2032 style). The transmitter and receiver module are FCC and DOC approved.

Alarm Disarm without transmitter: If the doors are locked and the alarm is set and you've lost your transmitter, you can disable the alarm. Here is how: Enter the vehicle (alarm will sound) and insert the key and turn it to the 'run' position (the position where the dash lights come on). Turn the On/Off switch off and on 4 times in a row to disable the alarm.

Valet Mode: Turning the Control switch off puts you in Valet Mode. In Valet Mode the Remote Car Starter and the alarm will not function. This lets you turn off the car starter when having the vehicle serviced. The only functions that work in Valet Mode are the keyless entry, lights and panic. The red LED dash light will flash twice every few seconds when in Valet Mode.

The Quick Stop Option™: You can leave the car running and take the key with you for a quick visit to a store. With the car running, push the Start button on the keychain transmitter just before pulling out the key. The car will run for 10 minutes or until you tap the brake or put the car in gear.

The Cold Start Option™: This automatically starts and runs the car for the preset run time (10 or 15 minutes) if the temperature drops below 0°F or if the battery voltage drops below 11 volts. Tapping the brake at any time after programming disables this feature. Here is how to set this feature: Hold the Start button down while the vehicle starts, runs, turns off and the lights begin to flash 5 times. Release the transmitter button. You have set the Cold Start Option™.

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limited lifetime consumer warranty

Directed Electronics, Inc. (hereinafter "Directed") promises to the original purchaser to repair or replace with a comparable reconditioned Directed remote start keyless entry unit if this Directed remote start keyless entry unit (hereinafter "Unit"), excluding without limitation, any remote transmitters or associated accessories, proves defective in materials or workmanship under normal use for the life of the vehicle which the Unit is originally installed. During this period, so long as the Unit remained installed in the original vehicle, Directed will at its option, repair or replace this Unit if it is proved defective in workmanship or material PROVIDED the Unit is returned to Directed's warranty department at One Viper Way, Vista, CA 92081, along with $20 postage and handling fee, a bill of sale or other dated proof of purchase bearing the following information: Date of purchase, name and location of the merchant who sold the Unit, and product description. This warranty does not cover labor costs for the removal or reinstallation of the Unit. This warranty is non-transferable and does not apply to any Unit that has been modified or used in a manner contrary to its intended purpose, and this warranty does not cover damage to any Unit caused by installation or removal of the Unit. This warranty is void if the Unit has been damaged by accident or unreasonable use, neglect, improper service or other causes not arising out of defects in materials or workmanship. Directed makes no warranty against theft of a vehicle or its contents.

THE FOREGOING WARRANTY IS THE EXCLUSIVE PRODUCT WARRANTY, OTHERWISE, ALL WARRANTIES INCLUDING BUT NOT LIMITED TO EXPRESS WARRANTY, IMPLIED WARRANTY, WARRANTY OF MERCHANTABILITY, OR FITNESS FOR A PARTICULAR PURPOSE ARE EXPRESSLY EXCLUDED AND DISCLAIMED TO THE MAXIMUM EXTENT ALLOWED BY LAW, AND DIRECTED NEITHER ASSUMES NOR AUTHORIZES ANY PERSON TO ASSUME FOR IT ANY LIABILITY IN CONNECTION WITH THE SALE OF THE PRODUCT. DIRECTED HAS ABSOLUTELY NO LIABILITY FOR ANY AND ALL ACTS OF THIRD PARTIES INCLUDING ITS AUTHORIZED DEALERS OR INSTALLERS. SOME STATES DO NOT ALLOW THE LIMITATION ON HOW LONG AN IMPLIED WARRANTY LASTS, SO THE ABOVE LIMITATION MAY NOT APPLY TO YOU.

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IMPORTANT NOTE:
This product warranty is automatically void if its date code or serial number is defaced, missing, or altered.
Make sure you have all of the following information from your dealer:
A clear copy of the sales receipt, showing the following:

- Date of purchase
- Authorized dealer's company name and address
- Item number

Daily Start™: This allows you to start the vehicle at the same time the next day. For example, if you leave for work at the same time each morning you can use the Daily Start™ feature to automatically start your car the next day. Here is how: Start your car with the transmitter as usual. When you enter the vehicle and before you put the key in the ignition, put your foot on the brake to turn the AutoCommand® off. Now within five seconds toggle the control switch off and on once while your foot is still on the brake. The dash lights will flash once to signal the setting of this option. Your vehicle will now start approximately 23 hours and 50 minutes later and run its normal cycle. You can still start the vehicle with the key or via the transmitter anytime without cancelling out this option.

Safety Notices:

1. **When taking your car in for any service or repairs, disable the remote starter by switching the Control switch to the OFF position. Inform the mechanic.**
2. **Never leave your keys in the Ignition when the vehicle is unattended.**
3. **Do not use this product in a closed garage to avoid excessive carbon monoxide build-up.**

Available Accessories:

Universal Alarm Bypass Module allows remote car starter installation on newer vehicles with factory anti-theft systems such as VATS, P.A.T.S., Passlock I, Passlock II, Pass-Key III, Saturn, Securlock, and Transponder systems.

Extra transmitters for more than one user in the family. Up to four transmitters can be used with each receiver in the vehicle.

These products can be purchased through your dealer.

Directed®
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Remote Car Starter Keyless Entry Notes Sheet for Model #s 28624T & 28628

Thank you for purchasing DesignTech unit that offers keyless entry features. Proper installation will result in years of trouble free keyless operation including locking and unlocking your vehicle's door locks and trunk control. Please read these instructions completely prior to beginning connection to the vehicle's locks and trunk.

GENERAL GUIDELINES AND CAUTIONS:

- Obtain a vehicle wiring sheet for your specific vehicle indicating the location, colors and types of locks and trunk system that you will be working with. Please note that it may be necessary for you to purchase external relays and/or diodes and resistors that are not included with your product. Please visit the DesignTech website at www.designtech-intl.com

- When testing for lock/ unlock/ trunk wires, closely follow the instructions and when checking electrical connections, use a test meter (multi-meter, voltage meter, etc.), **DO NOT** use a test light. It is easy to accidentally damage the circuitry in modern vehicles testing for wires with a test light.

- The better you make your connections, the more reliable your system will be. We recommend soldering all connections.

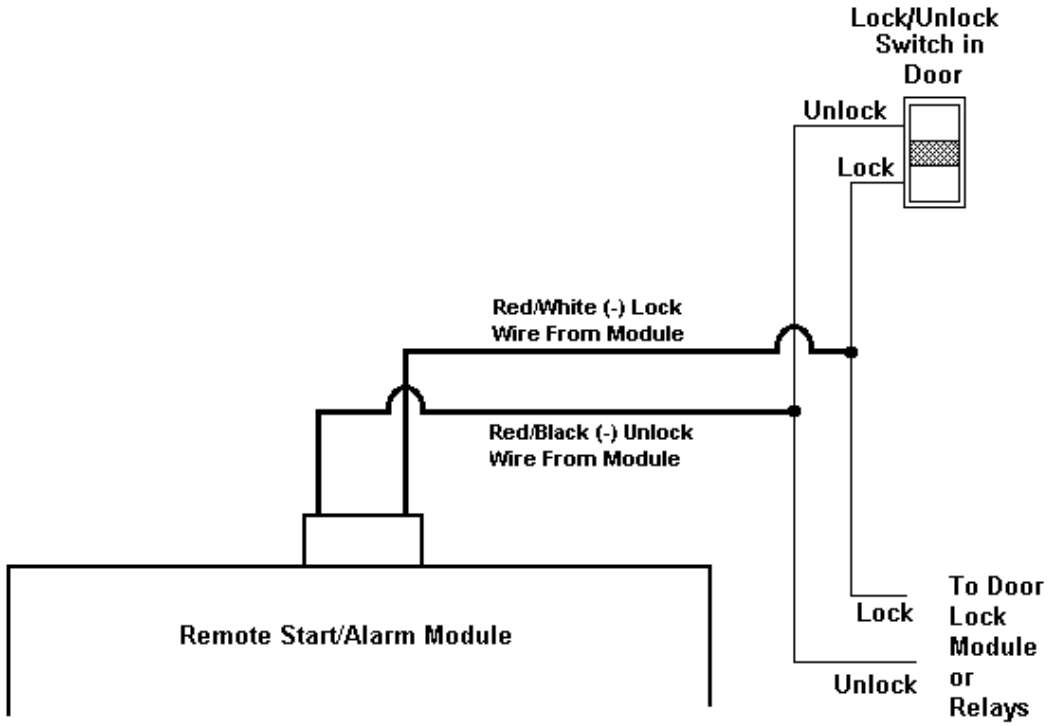
- All chassis ground wires must go to clean, bare metal surfaces. Always test the spot you have chosen for ground connections to make sure it is a good ground. Pieces of metal supporting or attached to the underside of the dashboard are not good locations. The best spot is usually in the kick-panel.

- Some door lock circuits will require that up to three wires on the DesignTech module be attached to +12 volts. When doing this, connect all these wires together and then put the fuse on the main wire so that all wires are protected with the fuse.

NEGATIVE TRIGGERED DOOR LOCK SYSTEMS

This circuit style is common to most Japanese cars and some European cars as well. In this circuit the door lock/ Unlock switch activates a relay which in turn activates the lock/ unlock motors in the car doors. The DesignTech module will be connected so that it provides a negative pulse to the appropriate wires to lock or unlock the doors.

Testing for this type system is very simple. First, check the Keyless Entry wiring guide and determine the color and location of the lock wires in the vehicle you are working on. Set your test meter on continuity (or ohms) and clip or attach one of the probes to the cars chassis.



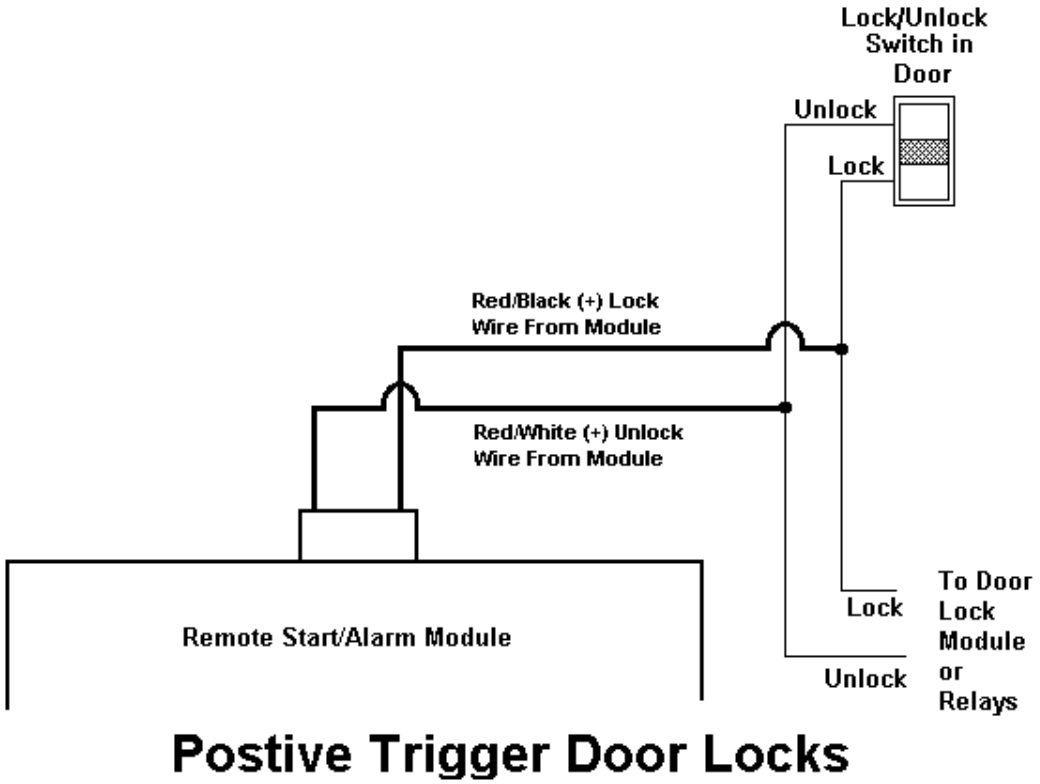
Negative Trigger Door Locks

Test the chassis connection you are using by touching the other probe to a different point on the cars chassis. The meter should register continuity, or a "continuous" circuit (zero ohms).

Next, locate the lock/ unlock wires (the ones from the wiring guide) in the car by removing whatever panel or covering you need to. With one probe from the meter still attached to the cars chassis, use the other probe and pierce the insulation of the lock wire. If you are on the correct wire, the meter should register continuity when you press the lock switch. When you check for unlock the meter will register when you press the unlock switch. These wires will register continuity ONLY when the corresponding lock or unlock switch is pressed. When you have found the correct wires, connect the DesignTech module according to the diagram above.

POSITIVE TRIGGERED DOOR LOCK SYSTEMS

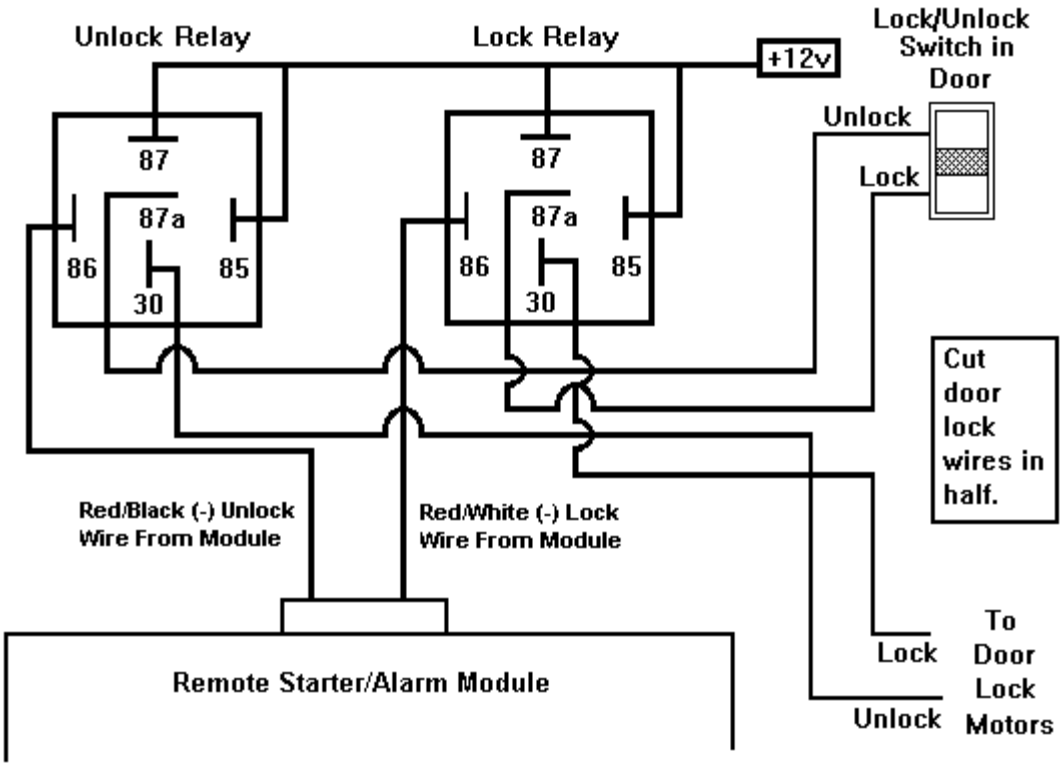
This circuit is similar to the negative system except that instead of a ground pulse to lock and unlock, the system requires a +12 volt pulse to lock and unlock the doors. This type system is found in most GM cars. When testing for this system, attach the black probe from the test meter to chassis ground and set the meter on the +12 volt DC scale. Use the red probe from the meter to check the wires. The meter will register around +12 volts on the lock wire when you press the lock switch and the meter will register the same for the unlock wire when you press the unlock switch. These wires will register +12 volts ONLY when the lock or unlock switch is pressed. When you have located the correct wires, connect them exactly according to the following diagram.



Postive Trigger Door Locks

REVERSE POLARITY DOOR LOCK SYSTEMS

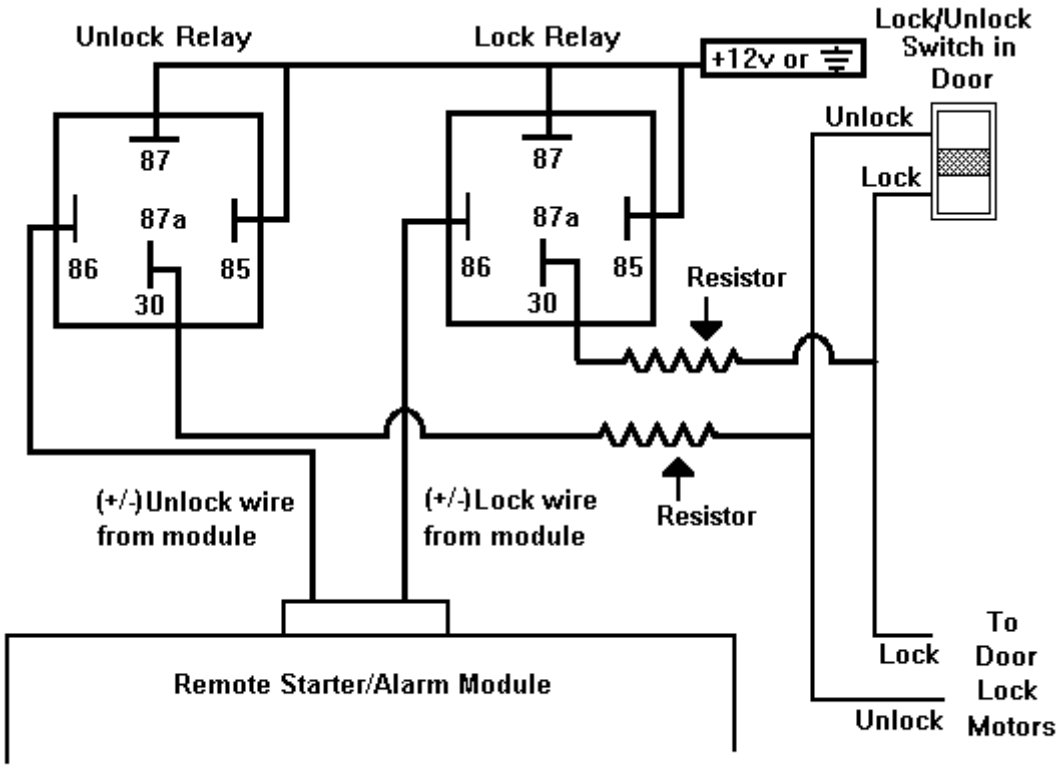
Reverse polarity systems are more complicated. The switch in the vehicle sends +12 volts in one direction while holding chassis ground on the other direction. This is true for both lock and unlock. Testing for this system requires to check for continuity to chassis ground on the lock and unlock wires at rest. Just like a positive triggered system, the lock wire will register +12 volts when you press the lock switch, and the unlock wire will register +12 volts when you press the unlock switch. When neither switch is being pressed, these wires will show ground on your meter. When you have located the correct wires, cut them in half. The switch side will still measure continuity to chassis ground at rest while measuring +12 volts when the switch is activated. The motor side will not meausure anything at either rest or when the switch is activated. Once you have determined which is the switch side and which is the motor side, connect them to the DesignTech module according to the diagram on the next page using two SPDT (Single Pole Double Throw) 5 pin relays.



Reverse Polarity Door Locks

SINGLE WIRE DOOR LOCK SYSTEMS

Single wire door lock systems have only recently come in to the market in the last five years or so. This type of door lock system differs from more traditional wiring systems as it only uses one wire to both lock and unlock the doors. Varying by make model and even year of vehicle, this system either switches +12 volts or ground across a resistor. The value of the resistor is different for lock and unlock, allowing the vehicle to determine which action is desired. If your vehicle has this type of door locking system, it is critical that you get the wiring information either faxed to you or off of our web site (www.designtech-intl.com). Use the diagram above to guide you through the wiring using two SPDT (Single Pole Double Throw) 5-pin relays.



Single Wire Door Locks

Trouble-Shooting Guide

Unit won't respond	Make sure unit has power and ground. Make sure unit is initialized (See 'Initializing the unit' in the manual) Re-program transmitter. (See 'Code Learning' under Special Cases in the manual). Check Diagnostic Code as described in Trouble Shooting with Self Diagnostics in the manual.
What is the Diagnostic Code, and how do I get it?	The Self-Diagnostics built into every DesignTech brand remote start will help identify problems in both the unit and your installation. To get an accurate diagnostic code, flip the toggle switch off and back on; the LED light (on module) should flash once if the unit is initialized. Press the start button on your transmitter for second. Now allow the unit to try and start your vehicle 1-3 times. (Note that the unit will attempt to start the vehicle up to 3 times unless codes 2,5,7 or 8 are being triggered, when it will try and start the vehicle once). Allow it up to a minute to try to start again on its own - Don't do ANYTHING to the unit during this time, unless something goes obviously wrong. At the end of the starting cycles, turn the toggle off and count the first series of flashes- this will be the diagnostic code.
Diagnostic Code 1 flash	The unit may not have attempted to start the vehicle yet or the unit may have started and timed out. Is the toggle switch upside down? When the switch is turned **on** the LED will flash once immediately. Something might be causing the unit to reset, such as a poor connection to ground or power, or you may have a relay wired improperly. Typically the wires in the control harness require a relay unless otherwise stated. The transmitter may need to be programmed.
Diagnostic Code 2 flashes	The unit thinks the hood is open. Make sure the hood pin-switch is properly adjusted and installed. The unit thinks the brake is being depressed. Make sure the brake wire has 12 volts on it only when the brake is depressed. There should be no voltage on the brake wire at any other time You might be experiencing feedback if you have connected the parking or head-lights. If disconnecting the lights wire allows the unit to start then you might power the headlights, or you can isolate the brake wire of the unit from the vehicle with a relay.
Diagnostic Code 3 flashes	If the unit is programmed for tach, the tach wire is not connected or the tach rate may not yet have been learned. If the unit is programmed for 'No-Tach' the vehicle may not have all the required ignition wires connected, or may be equipped with a factory security system – thus causing it to stall. Sometimes a unit may have an option programmed even though you did not specifically set that option. Try re-setting the unit. Unplug everything from the module except the black ground wire and LED (if you have a plug-in LED). While pressing the white button on the module, connect the power lead. The LED on the unit should turn on and stay on. Release the white push button and the LED should remain illuminated. (If not, repeat the process being sure to hold in the white button while connecting power.) Now remove power and wait 2 minutes. Then connect the power without pushing any buttons. Re-*Initialize* the unit and it should work for you.
Diagnostic Code 4 flashes	Make sure the remote input wire (usually red/white) is not touching anything. (This wire is not on all models). If you have a stick shift unit – this is not relevant to you. You might be pressing the remote control again before the unit has completed its cycle(s)---See 'Diagnostics: What is the Diagnostic code and how do I get it?' – at the top of this page. If installing a manual transmission unit, this code means the unit did not see the door pin-switch.
Diagnostic Code 5 flashes	This code means the unit thought the transmission was shifted into gear. If the transmission was not shifted: Switch the "in-gear" switch inside the module to the off position. This disables 'Transmission in Gear' sensing, and should solve the problem.
Diagnostic Code 6 flashes	Code 6 is caused by the unit not seeing the battery voltage increase enough when the vehicle starts. It can also be caused if you are not bypassing the factory theft system, such as PATS, VATS, or similar, if equipped. Double-check the ignition wiring against the vehicle-wiring guide. Your vehicle may require ignition 2, or in some cases ignition 3, in order to allow the alternator to function – thus bringing up the voltage. If the wiring is correct, and you are properly bypassing any security system the vehicle may be equipped with, then connecting the unit into tach mode should solve the problem. (Your alternator may not be functioning properly).
Diagnostic Code 7 flashes	An alarm sensor was triggered, causing the vehicle to shut down. (Only applies to units that have alarm features).
Diagnostic Code 8 flashes	Something in the control harness is not connected properly. One of the transistor outputs is driving too much current. There may be a wire connected without a required relay, or if you are using a relay, the relay may not be connected properly.
Diagnostic Code 9 flashes	Applicable only to manual transmission units. Indicates the unit did not see the emergency brake.
Diagnostic Code 10/11 flashes	These are not a valid codes.
Diagnostic Code 12 flashes	Make sure you have an accurate code. Please see 'What is the Diagnostic Code, and how do I get it?' at the top of this page. If you still get code 12, one of the toggle switch wires may have touched ground, possibly damaging the unit. Or maybe the switch was just turned off while it was running. Or maybe a defective switch?

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Initialization - What is it?	Initialization is a process which proves to the unit that you have connected the required safety features and that the unit has been installed in an automatic vehicle. See "Initializing the Remote Starter" in the manual.
Initialization - What if the unit will not initialize?	DO NOT ATTEMPT TO INITIALIZE or INSTALL ANY AUTOMATIC UNIT ON ANY MANUAL TRANSMISSION VEHICLE! Attempting to force an automatic unit to function on a manual stick-shift vehicle could result in serious property damage or personal injury! Is the unit already initialized? Make sure the switch is not upside down. Toggle the switch off and then back to on. As the switch is turned on, the LED light on the unit (or that plugs into the unit) will flash once if the unit is initialized. One of the ignition wires may have voltage on it. Make sure all ignition wires measure a "dead" 0 volts when the key is "off." (It is normal to measure a small amount of voltage from the unit's start wire.) Check that there is 12 volts on the orange wire in the control harness only when the brake is pressed. Check that there is continuity to ground on the purple wire in the control harness only when the hood is open. (A good way to test both the hood and brake at the same time is to connect a test light – the kind with a real light bulb – with one lead to the orange wire and the other lead from the test light connected to the purple wire. If you open the hood and press the brake, the light will illuminate if both connections are correct.) You may have the wrong start wire. Make sure the yellow start wire from the unit is connected to a wire in the vehicle which shows 12 volts only when the key is in the start (cranking) position. The wire should have power at no other time. Did you mistakenly switch the "in-gear" switch inside the module? If so, the unit will not initialize. This switch disables transmission in-gear sensing, and should only be switched if you have been instructed by a technician to do so or you are getting a diagnostic code of 5 flashes. Your vehicle may not have a neutral safety switch, such as pre 95 GM rear-wheel drive vehicles or Dodge Dakotas built prior to 1996. Try this: Open the hood and place your foot on the brake. Start the vehicle with the key. Turn the engine off and release the brake. If all of your connections are correct the unit should be initialized at this point. Try bypassing the toggle switch temporarily in case a wire or connection to it is broken. Just unplug the switch and jump across the two pins on the module that the switch plugs into with any metal object. As you jump (short) the two pins together the LED should flash if the unit is initialized. NOTE- DO NOT short any toggle switch wire to ground or probe the connector with a test light. Doing so may damage the unit.
I have a GM Truck and the "Check Engine" light is on after remote starting. What should I do?	You most likely have one of the ignition wires connected wrong. Make sure you have connected: From Unit to Vehicle Ign1 (Blue) PINK (hot in run and start) Ign2 (Green) WHITE or PINK/WHITE (hot in run and start) ACC(White) ORANGE (hot in run only) If you have the ignition wires connected as above and still have a check engine light it is possible the unit has been programmed to have ignition 2 "off during crank." Please review the programming options within the installation manual.
The vehicle cranks but fails to actually start	Please see "What is the diagnostic code and how do I get it?" Follow the steps for the diagnostic code you receive. You are probably missing one of your second or third ignition wires. Or if it is a Nissan – you probably have 2 starter wires which need to be shorted together.
My 3 button remote control will lock the doors but will not unlock them. My 5 button remote will not control lock/unlock individually.	Re-program the transmitter. Use the left button when teaching 3 button remote controls. When programming the 5 button remote, use the start button. (Refer to the installation manual for the complete steps on how to make the unit enter the code learning process.)

The vehicle runs – but without the heater or air-conditioner.	You are missing the 2nd (or 3rd) ignition wire or the accessory wire is not hooked up. Make sure the heater or air-conditioner is left on when you leave the vehicle. On diesel vehicles – they may not come on for a few minutes until after the vehicle is up and running.
I have poor range.	The antenna coax wire may be crimped, cut or otherwise damaged. Try the antenna both vertically and horizontally to determine the best performance. Make sure the receiver unit has a good chassis ground. Note that the higher you hold the transmitter off the ground when pushing the button – the further distance you will get from the system.
My vehicle has Passlock I or II and I cannot get a resistance reading.	Many meters have a known issue with measuring passlock. This is not a fault of the meter, the installer, or the manufacturer. These issues can cause problems such as getting a consistent reading of the resistance, or the reading may be artificially inflated. It is our belief that the mid-to-high-end meters seem to experience more problems measuring passlock than less expensive digital meters. One wire will have 0 volts - This is the wire you "tap" into-- we'll call this WIRE #1 USUALLY BLACK OR ORANGE/BLACK. One wire will have 5 volts or less- This is the wire you cut in half-- we'll call this WIRE #2 USUALLY YELLOW. One wire will have aproximately 12 volts - This is the wire you leave alone USUALLY WHITE OR BLACK/WHITE. With all PASSLOCK wires intact, turn the vehicle on and bump the starter. Measure the voltage between the wire #1 and wire#2. Your meter should be set on the 12 volt DC scale. RECORD THIS VOLTAGE. Without turning the key off - go ahead and separate WIRE #2. Reconnect the Universal Alarm Bypass Module (Part #20402 or 29402) as described in the installation manual with one exception - GROUND the wire that goes to the ignition 3 wire; you should hear the bypass module click. Now measure the voltage between the ENGINE side of WIRE #2 and wire #1. Your meter should be set on the 12 volt DC scale. Adjust the dip-switches and trim-pot on the bypass module until the voltage being measured EXACTLY matches the recorded voltage obtained without the module. Remove ground from the ignition 3 wire of the bypass module, turn the vehicle off and then restart it. Look at the voltage again - and while monitoring it ground the ignition 3 wire of the bypass again. If the module is set correctly the voltage should NOT change. Repeat again to verify - if you get the same voltage every time then the module is set up perfectly. There is no chart to help you with this, it is just trial and error -- but it will work regardless of the meter you are using.
Can I use the DesignTech Transmitter with other brands of products?	NO. Due to proprietary technology DesignTech brand products will operate only with DesignTech brand Transmitters. Likewise, a DesignTech transmitter will not operate another brand's products.
The LED on the unit flashes constantly	The alarm within the unit, if equipped (as are most units with 3 or 5 button remotes) may be armed, or the unit may be in valet mode. Make sure the wires going to the toggle switch are not broken, and that the toggle switch is on. Reset the unit - See "Resetting all options to the factory setting" in the instructions
The LED remains illuminated at all times	It is normal for the LED to glow dimly. This indicates the unit is receiving power. If the LED is at full brightness then one of the push-buttons may have been depressed when you applied power, the LED may be plugged into the wrong jack, or something may be wrong within the unit.
The starter stays engaged for 6 seconds.	If the unit is in tach mode – make sure the tach wire is properly connected and receiving the correct tach rate. If using the "No-Tach" method, make sure the unit is not programmed for tach mode, extended crank, or super crank. Make sure you have the correct start wire connected - the start wire in the vehicle should have 12 volts only when the key is in the start position. Some vehicles such as Toyotas and Nissans, experience a starter feedback problem. Try temporarily isolating the start wire from the key switch to identify this problem - simply cut the start wire in half between the connecting point of the units start wire and the key switch. Get Installation Note #133 from off our web-site or Fax On Demand.
How will I know if I need a relay?	If the output is labeled as a "+12 relay output" the unit contains a relay on that output - and you will only need to use a relay if the vehicle requires a negative output. If the output is labeled a "400ma Transistor Ground Output", this means the unit supplies a ground up to a maximum of 400ma. If more than 400ma is drawn through the output, the unit may shut down or it may be damaged. Generally speaking, if the vehicle requires a ground and the unit supplies a ground you will not need a relay. If the vehicle requires a positive and the unit supplies a ground, you will need to use a relay. Likewise, if the vehicle requires a ground capable of more than 400ma you would need to use a relay. See Installation Note 111, Basic Uses of the Relay from our web site or our Fax On Demand.

Vehicle only remote starts if I flip the toggle switch off and back on	This condition is perfectly normal. This is a safety feature designed to prevent unauthorized starting. If you have forgotten to flip the switch off and back on, you can still remote start the vehicle. Just hold the start button down for 6 to 10 seconds instead of the usual 1 second. If you do not like this safety feature, it can be permanently bypassed by programming option 7, explained under "Setting Programming Features" or a similar section within the installation instructions.
The car turns off when the brake is pressed- but as soon as I release the brake the vehicle starts again	The remote input wire available on some units (usually a red/white) may be connected to ground. The remote input wire should be taped up if not being used so that it does not touch ground.
The lights flash (and maybe even the horn) when I step on the brake.	The alarm has been armed and triggered – even if you did not hook it up. If the alarm features are not being used, you must ground the 'alarm trigger' wire permanently, or set option 24 if available.
The unit tries 2 or 3 times before getting the vehicle up and running	Program extended crank, or use tach mode.

Some General Comments:

- **<u>For Your Safety, never install an automatic unit into a manual transmission (stick-shift) vehicle!</u> Serious property damage or personal injury including death may occur! Instead, use one of our special manual transmission units, which will operate safely in a manual transmission vehicle.**

- **When testing wires use only a digital multimeter, unless otherwise instructed. A test light (especially the kind with a real light bulb) can severely damage electrical components in modern vehicles if used improperly. Also, "computer safe" LED type test lights - with a red and/or green LED- are NOT airbag safe! NEVER test ANY wire within an airbag system harness.**

- Always roll down at least one window in the vehicle before beginning work. This will prevent you from being accidentally locked out of the vehicle.

- It's okay to have a battery charger on the battery while you are working on the vehicle, but the car starter will not function correctly with the charger attached.

- Specific vehicle information is available directly from <u>www.designtech-intl.com</u>. If you have trouble with the colors in the wiring guide "matching up" then you may be in the wrong harness. You can make sure you are in the correct harness by unplugging the wires. For example: With the ignition switch, if you unplug it and then the vehicle no longer cranks, the blower and radio do not work, and the vehicle is for all purposes "dead" with the key- then you have found the "ignition switch harness." (Otherwise, you will need to continue searching...) The same technique can be used for the brake, lights, horn, etc. Once you are sure you are in the correct harness, if the wire colors still fail to match up then you will have to test the wires using a digital multimeter. It is always best to verify any wire before connecting to it.

- Most of the common questions that people ask are actually answered within the installation manual. Make sure you have thoroughly reviewed it before calling for technical support. We recommend going through the installation manual with two different colored markers. Read through each step and check it off after you have read it. Use the second marker to make a check when you have completed the step in the vehicle. This will help to make sure you have completed all steps, and that you have not missed any features the unit offers.

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Make/model	Year	START	IGN 1	IGN 2	IGN 3/THEFT	ACC	BRAKE LIGHTS	TACH	ALARM DISARM	PARKING LIGHTS	HORN	NOTE
ACURA												
2.5TL	1995-97	BLK / WHT	BLK / YEL	YELLOW	N/A	WHITE/BLK	GRN / WHT(+)	BLUE***	GRN / BLK in DKP	RED / BLACK (+)	BLUE / RED(-)	***at tach test connector
3.2TL	1999-02	BLK / WHT	BLK / YEL	WHT/BLK	99+ Transponder	YELLOW	GRN / WHT(+)	BLUE***	BLUE(-)	RED / BLACK (+)	BLUE / GRN(-)	***at tach test connector
3.2TL	1998	BLK / WHT	BLK / YEL	YELLOW		WHITE/BLK	GRN / WHT(+)	BLUE***	GRN/BLK(-)	RED / BLACK (+)	BLUE / RED(-)	***at tach test connector
3.5RL	1995-02	BLK / WHT	BLK / YEL	YELLOW	99+ Transponder	WHITE/BLK	GRN / WHT(+)	BLUE***	GRN / RED in driver door	RED / GREEN (+)	ORANGE(-)	***at tach test connector
CL	1997-02	BLK / WHT	BLK / YEL	YELLOW	99+ Transponder	WHITE/BLK	GRN / WHT(+)	BLUE	BLK / RED(-)***	RED / BLACK (+)	BLUE / RED(-)	***under pass seat
Integra	1994-01	BLK / WHT	BLK / YEL	YELLOW	N/A	WHITE/BLK	GRN / WHT(+)	BLUE***	use valet mode	RED/GRN OR RED/BLK	BLUE /GRN(-)	***at distributor assembly
Legend	1994-95	BLK / WHT	BLK / YEL	YELLOW	N/A	WHITE/RED	GRN / WHT(+)	BLUE	GREEN / RED**	RED / GREEN (+)	BLUE / RED(-)	**left of steering column
SLX	1996-00	WHITE/GRN	BLACK/YEL	BLACK/RED	N/A	BLUE	GREEN/YELLOW	BLACK/RED	N/A	YELLOW (-)	N/A	ALARM RELAY IN DRIVER KICK PANEL
SLX	1998-00	WHT/GRN	BLK / YEL	BLK/RED	N/A	BLUE	GRN / YEL(+)	BLK /RED	**ORANGE / BLACK	YELLOW (-)	LT GREEN (-)	**18 pin conn pass kick panel
Vigor	1991-94	BLK / WHT	BLK / YEL	YELLOW	N/A	WHITE/BLK	GRN / WHT(+)	BLUE	**GREEN / BLK(+)	RED / BLACK (+)	BLUE / RED(-)	**behind glove box
AUDI												
80	1988-92	RED / BLK	BLACK	YEL / BLK	N/A	N/A	RED / BLACK	GREEN	**BROWN / GREEN	GREEN / BLACK (+)	BRW / YEL(-)	**at theft module in trunk
90	1993-95	RED / BLK	BLACK	YEL / BLK	N/A	N/A	RED / BLACK	GRN / BLUE	**BROWN / GREEN	GREEN / BLACK (+)	BRW / YEL(-)	**at theft module in trunk
100	1989-94	RED / BLK	BLACK	BLK/YEL OR YEL/BLK	N/A	N/A	RED / BLACK	WHT/BLUE OR GRN	**BROWN / GREEN	GREEN / BLK (+)	BRW / YEL(-)	**driver kick panel
A4	1997-01	RED / BLK	BLACK	N/A	99+ Transponder	WHT / YEL	RED / BLUE	GRN / BLUE	**GRAY / WHITE	GREEN / RED (+)	BLACK	**in driver kick panel
A4	1995-96	BLUE	BLACK	N/A	N/A	BLK / YEL	RED / BLACK	BLK/ GRN	N/A	GREEN / RED (+)		
A6	1999-02	BLUE	BLK OR BLUE	N/A	99+ Transponder	YEL / BLK	RED/BLACK	GRY / GRN	**BRN / YELLOW	GREEN / GRAY (+)	N/A	**in driver kick panel
A6	1997-98	RED/BLK	BLACK	N/A	N/A	YEL / BLK	RED / BLACK	GRY/GRN	N/A	GREEN / RED (+)		
A8	2000-02	BLK/RED	BLACK	N/A	N/A	YEL/BLK	RED/BLACK			GREEN/BLACK (+)	BLK/GREEN (-)	Equipped with Transponder
A8	1998-99	RED / BLK	BLACK	N/A	Transponder	YEL / BLK	RED / BLACK		**BROWN / RED	GREEN / RED (+)		**at vaccum motor
A8	1997	RED / BLK	BLACK	N/A	Transponder	YEL / BLK	RED / BLACK		**BROWN / RED	GRAY / RED (+)		**in driver kick panel
Cabriolet	1995-96	BLUE	BLACK	N/A	N/A	BLK / YEL	RED / BLACK	GRN / BLK		GREEN / BLACK (+)		
S4	1993-94	RED / BLK	BLACK	N/A	N/A	YEL / BLK	RED / BLACK	BLK/ GRN		GRAY / BLACK (+)		
BUICK												
Century	1997-02	YELLOW	PINK	DK-GRN	VATS	ORANGE	WHITE	WHITE	**LT-GREEN	LT-BLUE	BLACK(-)	**in driver kick panel
Century	1984-96	YELLOW	PINK		VATS	ORANGE	WHITE	PPL /WHT or WHT		BROWN (+)	BLACK(-)	**6 cylinder tach ppl/white
Lesabre	2000-02	YELLOW	PINK	WHITE	N/A	ORANGE	WHITE	WHITE	NO ALARM PRESENT	BROWN/WHITE	BLACK	PASSKEY III
Lesabre	1998-99	YELLOW	PINK	N/A	N/A	ORANGE	LT-BLUE	WHITE	**LT-GREEN	BROWN (+)	BLACK(-)	**in driver kick panel
Lesabre	1986-97	YELLOW	PINK	N/A	N/A	ORANGE	LT-BLUE	WHITE	**LT-GREEN	BROWN (+)	BLACK(-)	**in driver kick panel
Park Avenue	1998-02	YELLOW	PINK	WHITE	Transponder	ORANGE	LT-BLUE	WHITE	**LT-GREEN	BROWN (+)	BLACK(-)	**in driver kick panel (also equipped with Passlock III)
Park Avenue	1994-97	YELLOW	PINK	N/A	N/A	ORANGE	WHITE	WHITE	**LT-GREEN	BROWN (+)	BLACK(-)	**in driver kick panel
Park Avenue Ultra	1997-02	YELLOW	PINK	WHITE	Transponder	ORANGE	LT-BLUE	WHITE	**LT-GREEN	GRAY / BLACK (-)	BLACK(-)	**in driver kick panel (also equipped with Passlock III)
Regal	1998-02	YELLOW	PINK	WHITE	N/A	ORANGE	WHITE	PPL /WHT OR WHT		LT-BLUE (-)	BLACK(-)	
Regal	1993-97	YELLOW	PINK	PPL, BLUE/WHT, OR WHT	N/A	ORANGE	WHITE	PPL /WHT		BROWN (+)	BLACK(-)	
Regal RWD	1996	YEL OR PPL	PINK	N/A	N/A	ORANGE	WHITE	WHITE	**LT-GREEN	BROWN (+)	BLACK(-)	**in driver kick panel (may be equipped with VATS)
Riviera	1995-99	YELLOW	PINK	WHITE	VIO /WHT	ORANGE	WHITE	WHITE	**LT-GREEN	BROWN (+)	BLACK(-)	**in driver kick panel (may be equipped with VATS)
Riviera	1988-94	YELLOW	PINK	BL / WHT	VIO /WHT	ORANGE	LT-BLUE	PPL /WHT OR WHT	**LT-GREEN	BLUE OR BROWN (+)	BLACK(-)	**in driver kick panel (may be equipped with VATS)
Roadmaster	1994-96	YELLOW	PINK	N/A	N/A	ORANGE	WHITE	WHITE OR WHT/BLK		BROWN (+)	BLACK(-)	**6 cylinder tach ppl/white
Skylark	1996-98	YELLOW	PINK	WHITE	PASSLOCK	ORANGE	WHITE	WHITE		BROWN (+)	BLACK(-)	** see note 238 for passlock bypass
Summerset	1987	YELLOW	PINK	N/A	N/A	ORANGE	LT-BLUE	PPL /WHT OR WHT	**LT-GREEN	BROWN (+)	BLACK(-)	**in driver kick panel
Cadillac												
Allante	1993	YELLOW	PINK	VIO / WHT	VATS	ORANGE	LT-BLUE (+)	WHITE	**LT-GREEN	BROWN (+)	BLACK(-)	**in driver kick panel
Fleetwood (RWD)	1990-96	YELLOW	PINK	N/A	VATS	ORANGE	WHITE OR BLUE (+)	WHITE	**LT-GREEN	BROWN (+)	BLACK(-)	**in driver kick panel (may be equipped with VATS)
Coupe DeVille	1992-93	YELLOW	PINK	N/A	N/A	ORANGE	LT-BLUE (+)	WHITE	**LT-GREEN	BROWN (+)	BLACK(-)	**in driver kick panel
Eldorado	1992-94	YELLOW	PINK	N/A	VATS	ORANGE	LT-BLUE (+)	WHITE	**LT-GREEN	BROWN (+)	BLACK(-)	**in driver kick panel (may be equipped with VATS)
Catera	1997-02	BLK / RED	BROWN	RED	Transponder	WHITE	BLK / YEL (+)	**GREEN	**BRN/PPL(-)	GRAY / GREEN (+)	BRW /WHT(-)	**pin 80 of ecm on front of eng comp
Concours	1995-99	YELLOW	PINK	LT-BLUE	VATS	ORANGE	LT-BLUE (+)	WHITE	**LT-GREEN	BROWN (+)	BLACK(-)	**in driver kick panel (also equipped with VATSI)
DeVille	2000-02	YELLOW	PINK	WHITE	N/A	ORANGE	WHITE (+)	PURPLE/WHT	LT-GREEN	BROWN/WHT	BLACK (-)	PASSKEY III
DeVille	1994	YELLOW	PINK	N/A	VATS	ORANGE	LT-BLUE (+)	WHITE	**LT-GREEN	BROWN (+)	BLACK(-)	**in driver kick panel
Eldorado	1995-02	YELLOW	PINK	LT-BLUE	VATS	ORANGE	LT-BLUE (+)	WHITE	**LT-GREEN	GRAY / BLACK (-)	BLACK(-)	**in driver kick panel (also equipped with VATSI)
Eldorado	1986-89	YELLOW	PINK	BL / WHT	PPL / WHT	ORANGE	LT-BLUE (+)	WHITE	**LT-GREEN	BROWN (+)	BLACK(-)	**in driver kick panel (may be equipped with VATS)
Escalade	1999-01	YELLOW	PINK	WHITE	Passlock II	ORANGE	WHITE (+)	PPL/WHT OR WHT		BROWN (+)	BLACK(-)	(also equipped with Passlock III)
Escalade	1999-02	YELLOW	PINK	WHITE	N/A	ORANGE	WHITE (+)	Wht or Vio/Wht	Pulse pink ing 1(+)	BROWN (+)	BLACK (-)	Equipped with Passlock II
Seville SLS STS	1998-02	YELLOW	PINK	LT-BLUE	Transponder	ORANGE	LT-BLUE (+)	WHITE	**LT-GREEN	GRAY / BLACK (-)	BLACK(-)	**in driver kick panel (also equipped with Passkey III)
Seville	1992-97	YELLOW	PINK	N/A	VATS	ORANGE	LT-BLUE (+)	WHITE	**LT-GREEN	BRN OR GRY/BLK (+)	BLACK(-)	**in driver kick panel (may be equipped with VATS)
Chevrolet												
Astro	1996-02	YELLOW	PINK	WHITE (96+)	See Note	ORANGE	WHITE (+)	WHITE	N/A	BROWN (+)	BLACK (-)	1998 + Equipped with Passlock II
Beretta / Z26	1994-96	YELLOW	PINK	N/A	N/A	ORANGE	WHITE (+)	WHITE	N/A	BROWN (+)	BLACK(-)	
Blazer	1995-01	YELLOW	PINK	WHITE (96+)	See Note	ORANGE	WHITE (+)	WHITE	N/A	BROWN (+)	BLACK (-)	1998 + Equip w/ Passlock II (95 ign2=pink/white)
Blazer	1994	YELLOW	PINK	ORANGE	N/A	BROWN	WHITE (+)	WHITE	N/A	BROWN (+)	BLACK (-)	
Blazer Full Sise	1978-94	YELLOW	PINK	ORANGE	N/A	BROWN	WHITE (+)	WHITE	N/A	BROWN (+)	BLACK (-)	
Camaro,Z28	1982-02	YELLOW	PINK	N/A	VATS	ORANGE	LT-BLUE (+)	WHITE	N/A	BROWN (+)	BLACK(-)	(also may equipped with VATS system)
Caprice	1994-96	YELLOW	PINK	N/A	N/A	ORANGE	WHITE (+)	WHITE	**LT-GREEN	BROWN (+)	BLACK(-)	**in driver kick panel (may be equipped with VATS)
Caprice	1981-96	VIOLET	PINK	N/A	N/A	ORANGE	WHITE (+)	WHITE	**LT-GREEN	BROWN (+)	BLACK(-)	**in driver kick panel (may be equipped with VATS)
Cavalier	2000-02	YELLOW	PINK	WHITE	Passlock II	ORANGE	WHITE (+)	WHITE	N/A	BROWN (+)	BLACK(-)	equipped with Passlock II)
Cavalier	1996-99	YELLOW	PINK	WHITE	PASSLOCK	ORANGE	WHITE (+)	WHITE	N/A	BROWN (+)	BLACK(-)	equipped with passlock with passlock II)
Cavalier	1995	YELLOW	PINK	WHITE		ORANGE	WHITE (+)	WHITE	N/A	BROWN (+)	BLACK(-)	Passlock optional in 1995
Corsica	1987-96	VIOLET	PINK	N/A	N/A	ORANGE	WHITE (+)	WHITE	N/A	BROWN (+)	BLACK(-)	
Corvette	1997-02	YELLOW	PINK	N/A	VATS	ORANGE	LT-BLUE (+)	VIOLET/WHT	**LT-GREEN	BROWN (+)	BLACK(-)	**in driver kick panel (also equipped with VATS
Corvette	1987-96	YELLOW	PINK	N/A	VATS	ORANGE	WHITE (+)	WHITE	**LT-GREEN	BROWN (+)	BLACK(-)	
Express	1997-02	YELLOW	PINK	WHITE	See Note	ORANGE	PURPLE (+)	WHITE	N/A	BROWN (+)	BLACK(-)	1998+ equipped with passlock II
Impala	1994-96	YELLOW	PINK	N/A	VATS	ORANGE	WHITE (+)	WHITE / BLK	**LT-GREEN	BROWN (+)	BLACK(-)	**in driver kick panel (also equipped with VATS
Impala (fwd)	2000-02	YELLOW	PINK	Dk-Green	Passlock II	ORANGE	WHITE (+)	WHITE	NO ALARM PRESENT	Brown/White or Blue	BLACK (-)	Equipped with Passlock II
Impala SS	1996-99	YELLOW	PINK	N/A	VATS	ORANGE	WHITE (+)	WHITE	**LT-GREEN	BROWN (+)	BLACK(-)	**in driver kick panel (also equipped with VATS
Lumina APV	1995-96	YELLOW	PINK	ORANGE	N/A	ORANGE	WHITE (+)	WHITE	**LT-GREEN	BROWN (+)	BLACK(-)	**in driver kick panel (may be equipped with VATS)
Lumina APV	1990-94	YELLOW	PINK	ORANGE	N/A	ORANGE	PPL / WHT	WHITE	N/A	BROWN (+)	BLACK(-)	
Lumina Sedan	95-00	YELLOW	PINK	PPL OR WHITE	VATS	ORANGE	WHT OR BLU	WHITE	N/A	BROWN (+)	BLACK(-)	(also equipped with VATS)
Lumina Sedan	1990-94	YELLOW	PINK	BL/WHT OR PPL/WHT	VATS	ORANGE	WHT OR BLU	WHITE	N/A	BROWN (+)	BLACK(-)	**in driver kick panel (may be equipped with VATS)
Malibu	1997-02	YELLOW	PINK	DK-GREEN	Passlock II	ORANGE	LT-BLUE (+)	LT-BLUE OR WHT (+)	N/A	BROWN (+)	BLACK(-)	(equipped with passlock II)
Monte Carlo	1995-02	YELLOW	PINK	GREEN	VATS	ORANGE	WHITE (+)	WHT OR PPL/WHT	N/A	BROWN (+)	BLACK(-)	(also equipped with VATS)
Pick-up Full size	1995-02	YELLOW	PINK	WHITE	See Note	ORANGE	WHITE (+)	WHITE	N/A	BROWN (+)	BLACK(-)	(1998/01 also equipped with passlock II)

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Make/model	Year	START	IGN 1	IGN 2	IGN 3/THEFT	ACC	BRAKE LIGHTS	TACH	ALARM DISARM	PARKING LIGHTS	HORN	NOTE
Pick-up Full size	1988-94	YELLOW	PINK	N/A	N/A	ORANGE	WHITE (+)	WHITE	N/A	BROWN (+)	BLACK(-)	
Pick-up S-10	1995-02	YELLOW	PINK	WHITE 96+	See Note	ORANGE	WHITE (+)	WHITE	N/A	BROWN (+)	BLACK(-)	(1998/01 also equipped with passlock II)
Pick-up S-10	1986-94	VIOLET	PINK	N/A	N/A	ORANGE	WHITE (+)	WHITE	N/A	BROWN (+)	BLACK(-)	
S-10 Blazer	1995-02	YELLOW	PINK	WHITE 96+	See Note	ORANGE	WHITE (+)	WHITE	N/A	BROWN (+)	BLACK(-)	(1998/01 also equipped with passlock II)
S-10 Blazer	1986-94	YELLOW	PINK	N/A	N/A	ORANGE	WHITE (+)	WHITE	N/A	BROWN (+)	BLACK(-)	
Suburban	1995-02	YELLOW	PINK	WHITE 96+	See Note	ORANGE	WHITE (+)	VIOLET/WHITE	N/A	BROWN (+)	BLACK(-)	(1998/01 also equipped with passlock II)
Suburban	1992-94	Violet or Yel	PINK	N/A	N/A	ORANGE	WHITE (+)	WHITE	N/A	BROWN (+)	BLACK(-)	
Tahoe	1995-02	YELLOW	PINK	WHITE 96+	See Note	ORANGE	WHITE (+)	WHITE	N/A	BROWN (+)	BLACK(-)	(1998/01 also equipped with passlock II)
Van	1995-01	YELLOW	PINK	WHITE	See Note	ORANGE	WHITE (+)	WHITE	N/A	BROWN (+)	BLACK(-)	(1998/01 also equipped with passlock II)
Van	1985-94	Violet or Yel	PINK	N/A	N/A	ORANGE	WHITE (+)	WHITE	N/A	BROWN (+)	BLACK(-)	
Venture	1997-02	YELLOW	PINK	WHITE	See Note	ORANGE	WHITE (+)	WHITE	ORANGE / BLACK (-)	BROWN (+)	BLACK(-)	(1998/01 also equipped with passkey III
Chrysler												
300M	1999-02	YELLOW	BLUE / WHT	GRN / RED	Transponder	BLK / ORG	WHITE / TAN(+)	TAN /PINK	**GREEN / ORANGE (+)	BLACK / YELLOW (+)	BLK / RED (-)	**equipped with transponder key
Cirrus	1995-99	YELLOW	BLUE	GRN/RED	N/A	BLK / ORG	WHT OR WHT/TAN	BLK / GRAY	**GREEN / ORANGE (+)	BLACK / YELLOW (+)	BLK / RED (-)	Optional tranponder key in late model
Concorde	1998-02	YELLOW	BLUE / WHT	GRN / RED	N/A	BLK / ORG	WHITE / TAN(+)	TAN /PINK	**GREEN / ORANGE (+)	BLACK / YELLOW (+)	BLK / RED (-)	**in driver kick panel
Concorde	1996-97	YELLOW	BLUE	RED / WHT	N/A	BLK / ORG	WHITE / TAN(+)	RED	**GRN/ORG OR WHITE (-)	BLACK / YELLOW (+)	BLK / RED (-)	**in driver kick panel
Concorde	1993-95	YELLOW	BLUE	RED / WHT	N/A	BLK / ORG	WHITE / TAN(+)	RED / YEL	**GREEN / ORANGE (-)	BLACK / YELLOW (+)	BLK / RED (-)	**in driver kick panel
Imperial	1990-95	YELLOW	BLUE	N/A	N/A	BLK / ORG	WHITE / TAN(+)	BLK / GRAY	N/A	BLACK / YELLOW (+)	BLK / RED (-)	
Le Baron Coupe	1990-94	YELLOW	BLUE	N/A	N/A	BLK / ORG	WHITE / TAN(+)	BLK / GRAY	N/A	BLACK / YELLOW (+)	BLK / RED (-)	
LeBaron Conver.	1990-95	YELLOW	BLUE	N/A	N/A	BLK / ORG	WHITE / TAN(+)	BLK / GRAY	N/A	BLACK / YELLOW (+)	BLK / RED (-)	
Lebaron Sedan	1993-94	YELLOW	BLUE	N/A	N/A	BLK / ORG	WHITE / TAN(+)	GRAY / BLU	N/A	BLACK / YELLOW (+)	BLK / RED (-)	
LHS	1999-02	YELLOW	BLUE / WHT	GRN / RED	Transponder	BLK / ORG	WHITE / TAN(+)	TAN /PINK	**GREEN / ORANGE (+)	BLACK / YELLOW (+)	BLK / RED (-)	**equipped with transponder key
LHS	1994-98	YELLOW	BLUE	RED / WHT	N/A	BLK / ORG	WHITE / TAN(+)	RED	**GRN / ORG OR WHT (-)	BLACK / YELLOW (+)	BLK / RED (-)	**in driver kick panel
LHS	1994-95	YELLOW	BLUE	RED / WHT	N/A	BLK / ORG	WHITE / TAN(+)	GRAY	**GREEN / ORANGE (-)	BLACK / YELLOW (+)	BLK / RED (-)	**in driver kick panel
New Yorker	1996-97	YELLOW	BLUE	RED / WHT	N/A	BLK / ORG	WHITE / TAN(+)	RED	**GREEN / ORANGE (-)	BLACK / YELLOW (+)	BLK / RED (-)	
New Yorker	1994-95	YELLOW	BLUE	RED / WHT	N/A	BLK / ORG	WHITE / TAN(+)	GRAY	**GREEN / ORANGE (-)	BLACK / YELLOW (+)	BLK / RED (-)	**in driver kick panel
Sebring	2001-02	YELLOW	BLUE	GREEN/RED	N/A	BLK/ORG &BLK/WHT	WHITE/TAN (+)		LT.GREEN/ORANGE (-)	BLACK/YELLOW (+)	BLK/RED (-)	**equipped with transponder key
Sebring	1995-99	BLK / RED	BLK / WHT	BLU / BLK	N/A	BLUE	GREEN (+)	WHT / BRN	**GREEN/ORG OR GRN/WHT (-)	GREEN / WHITE (+)	GRN / RED(-)	**in driver kick panel
Sebring Conver.	1996-99	YELLOW	BLUE	N/A	N/A	BLK / ORG	WHITE / TAN(+)	BLK / GRAY	GREEN / ORANGE	BLACK / YELLOW (+)	BLK / RED (-)	**late model are equipped with transponder key
Town & Country	2001-02	YELLOW	PINK/WHT	N/A	N/A - Transponder	N/A	WHITE/BLK		VIOLET/Light BLUE	RED/BLK	GREEN/BLK (-)	(note: this vehicle needs 180 ohm resistor on 2nd starter wire)
Town & Country	1996-00	YELLOW	BLUE	GREEN/RED	N/A	BLK/ORANGE	WHITE/TAN (+)	D BLUE/TAN	WHITE/RED (-)	BLACK/YELLOW (+)	BLACK (-)	
Town & Country	1991-95	YELLOW	BLUE	BLK/ORG	N/A	BLK/WHITE	WHITE/TAN (+)	BLACK/GRAY	N/A	BLACK/YELLOW (+)	BLACK/RED	
Dodge												
Avenger	1995-99	BLK / RED	BLK / WHT	BLUE / BLK	N/A	BLUE	GREEN	WHT / BRW	**GREEN / WHT	GREEN / WHITE (+)	GRN / RED(-)	**in black 20 pin connector driver kick panel
Caravan	2001-02	YELLOW	PINK/WHT	N/A	N/A - Transponder		WHITE/BLK		VIOLET/Light BLUE	RED/BLACK (+)	GREEN/BLK (-)	(note: this vehicle needs 180 ohm resistor on second starter wire)
Caravan	1996-00	YELLOW	BLUE	DGRN/RED	N/A	BLK/ORANGE	WHITE/TAN (+)	GRAY/BLUE	WHITE/RED (-)	L GREEN/RED (-)	BLACK/RED (-)	
Caravan	1991-95	YELLOW	BLUE	BLK/ORG	N/A	BLK/WHITE	WHITE/TAN (+)	BLK / GRAY	N/A	BLACK/YELLOW (+)	BLACK/RED (-)	
Colt	1996	BLK / YEL	BLK / WHT	BLUE / BLK	N/A	BLUE	GREEN (+)	WHITE	N/A	GREEN / WHITE (+)	GRN / RED(-)	
Colt	1995	BLK / YEL	BLK / WHT	BLUE / BLK	N/A	BLUE	GREEN (+)	WHITE	N/A	GREEN / WHITE (+)	GRN / BLK (-)	
Dakota	1997-02	BLUE / YEL	BLUE	Grn/Red 99+	N/A	BLK / ORNG	WHITE / TAN	WHITE(+)	**BLACK / ORNG (-)	BLACK / YELLOW (+)	BLK / RED (-)	**12 pin blk connector behind driver dash
Dakota	1992-96	YELLOW	BLUE	BLK/ORNG	N/A	BLACK/WHITE	WHITE(+)	GRAY / BLK	N/A	BLACK / YELLOW (+)	BLK / RED (-)	
Durango	1998-02	YELLOW	BLUE	Grn/Red 99+	N/A	BLK / ORNG	WHITE / TAN	BLK / GRAY	**GREEN / ORNG (-)	BLACK / YELLOW (+)	BLK / RED (-)	Late Model Require resistor value to Disarm
Intrepid	1998-02	YELLOW	BLUE / WHT	GRN / RED	**TRANSPONDER	BLK / ORG	WHITE / TAN(+)	TAN / PINK	**GREEN / ORANGE (+)	BLACK / YELLOW (+)	BLK / RED (-)	2000+ are equipped with Transponder key
Intrepid	1996-97	YELLOW	BLUE	RED / WHT	N/A	BLK / ORG	WHITE / TAN(+)	RED	**WHITE (-)	BLACK / YELLOW (+)	BLK / RED (-)	**at fact keyless mod on top of dash
Neon	1995-02	YELLOW	BLUE	N/A	**TRANSPONDER	BLK / ORG	WHT OR WHT/TAN	BLK / GRAY	N/A	BLACK / YELLOW (+)	BLK / RED (-)	2000+ are equipped with Transponder key
Omni	1987-90	YELLOW	BLUE	N/A	N/A	BLK / RED	WHITE	BLK / YELLOW	N/A	BLACK / YELLOW (+)	BLK / RED (-)	
Ram Pick-up	2002	YELLOW	BLUE	GREEN	ORANGE	BLK/WHT & BLUE	WHITE/TAN (+)	TAN/RED	LT.GREEN/ORG (-)	PURPLE/YELLOW	BLK/RED (-)	
Ram Pick-up	1997-01	BLUE / YEL	BLUE	BLACK/ORG	N/A	BLACK/WHITE	WHITE / TAN	GRAY / BLU	**GREEN / ORNG (-)	BLACK / YELLOW (+)	BLK / RED (-)	**24 pin conn behind driver dash
Ram Pick-up	1994-96	YELLOW	BLUE	BLACK/ORG	N/A	BLACK/WHITE	WHITE / TAN	GRAY / BLU	N/A	BLACK / YELLOW (+)	BLK / RED (-)	
Ram Pick-up	2002	YELLOW	BLUE	RED	GRN&ORG-Trans	BLU&BLK/WHT	WHITE / TAN	TAN/RED	LT.GREEN/ORG	PUR/YEL	BLK/RED (-)	NOTE: needs 1.4K ohm resistor for parking liths
Ram Van Wagon	1998-02	YEL / BRN	BLUE	BLACK/ORG	N/A	BLACK/WHITE	WHITE / TAN	GRAY	**BLACK / ORNG (-)	BLACK / YELLOW (+)	BLK / RED (-)	**12 pin blk conn-driver kick pan. (1998=Yel/Brwn)
Ram Van Wagon	1992-98	YELLOW	BLUE	BLACK/ORG	N/A	BLACK/WHITE	WHITE / TAN	GRAY	N/A	BLACK / YELLOW (+)	BLK / RED (-)	
Shadow	1991-94	YELLOW	BLUE	N/A	N/A	BLK / ORG	WHITE	BLK / GRAY	N/A	BLACK / YELLOW (+)	BLK / RED (-)	
Spirit	1989-94	YELLOW	BLUE	N/A	N/A	BLK / ORG	WHITE	BLK / GRAY	N/A	BLACK / YELLOW (+)	BLK / RED (-)	
Stealth	1991-95	BLK / YEL	BLK / WHT	BLUE / BLK	N/A	BLUE	GREEN	WHT / BLK	*LT-GREEN (-)	GRN/WHT OR ORG (+)	GRN / BLK (-)	**in driver kick panel
Stratus	2001-02	BLK/RED	DK GREEN	BLUE/RED	TRANSPONDER	BLUE/BLK	GRN/ORG	WHT OR WHT/RED	DISARMS WITH UNLOCK	GRN/WHT OR PNK/BLK	GRN/BLK (-)	
Stratus	1995-99	YELLOW	BLUE	BLK/ORG	N/A	BLK / WHT	WHITE / TAN(+)	BLK / GRAY	*LT-GREEN / ORANGE(+)	BLACK / YELLOW (+)	BLK / RED (-)	*back of fuse junction block 270 Omhs resistance …
Viper	1995-02	YELLOW	BLUE	N/A	TRANS-99+	BLK / ORG	WHITE	GRAY / BLU	N/A	BLUE OR TAN (+)	BLK / RED (-)	..for disarrm needed
FORD												
Excursion	2000	RED/BLUE	RED/BLACK	RED/BLACK	2ND GRY/YEL	RED/BLACK	BLK/LGRN(+)	L GREEN (+)	D.GREEN/PURPLE (-)	BROWN (+)	YEL/L GREEN (-)	Equipped with Transponder
Aerostar	1992-98	WHITE/PINK	RED/L GRN	GRAY/YEL	2ND GRY/YEL	BLK/LGRN(+)	L GREEN (+)	TAN/YELLOW	N/A	BROWN (+)	YEL/LGREEN	
Areomax	1996-98	WHITE/PINK	RED/L GRN	GRAY/YEL	2ND GRY/YEL	BLK/LGRN(+)	L GREEN (+)	TAN/YELLOW	N/A	BROWN (+)	YEL/LGREEN	
Aspire	1994-98	WHITE	BLUE	BLK/RED	N/A	GREEN	GREEN	WHITE	N/A	RED/BLACK (+)	RED/GRN (-)	
Bronco	1992-96	RED/BLUE	RED/L GRN	GRAY/YEL	2ND GRY/YEL	BLK/LGRN(+)	L GREEN (+)	TAN/YELLOW	N/A	BROWN (+)	DARK BLUE (-)	
Contour	1995-00	GRY/WHT	GREEN	N/A	TRANS-99 +	YELLOW	ORNG/YELLOW	WHT/BLACK	N/A	RED/BLUE (+)	BLK/BLUE (-)	
Crown Victoria	1995-02	WHT/PINK	BRW/PINK	PINK/BLK	GRAY/YEL	BLK/GRN	LT-GREEN	TAN/LT-GREEN	May equipped with transp	BROWN (+)	YEL/GREEN (-)	Equipped with 2 GRAY/YEL external relay is required
Crown Victoria	>1994	WHT/PINK	RED/GREEN	BRW/PINK	GRAY/YEL	BLK/GRN	LT-GREEN	TAN/YELLOW	N/A	BROWN (+)	YEL/GREEN (-)	Equipped with 2 GRAY/YEL external relay is required
Econoline	1992-01	WHITE/PINK	RED/L GRN	GRAY/YEL	2ND GRY/YEL	BLK/LGRN(+)	L GREEN (+)	TAN/YELLOW	D.GREEN/PURPLE (-)	BROWN (+)	YEL/L GREEN (-)	
Escape	2001-02	TAN/LT.BLU	LGRN/PURP	N/A	N/A - Transponder	BLK/LT.GRN	L GREEN (+)		LT.GREEN/BLK	BROWN (+)	YEL/L GREEN (-)	Equipped with Transponder
Escort zx2	1999-02	RED/WHT	BLUE	BLACK/RED	N/A	BLACK/WHITE	GREEN (+)	L.GREEN/RED	N/A	RED/BLACK (+)	GREEN/ORG (-)	
Escort	1997-98	BLK/GRN	GRY/YEL	RED/GRN	N/A	RED/BLUE	GREEN	GREEN/RED	N/A	RED/BLACK (+)	GRN/ORNG (-)	98 & UP MAY equipped WITH TRANSPONDER KEY.
Escort	1994-96	BLK/BLUE	DK-BLUE	BLK/RED	N/A	BLK/WHT	DK-GREEN	YEL/DK-BLUE	N/A	RED/BLACK (+)	GRN/ORG	
Excursion	2001-02	RED/BLUE	RED/BLACK	RED/BLACK	2ND GRY/YEL	RED/BLACK	BLK/LGRN(+)	WHITE/PINK	D.GREEN/PURPLE (-)	BROWN (+)	YEL/L GREEN (-)	Equipped with Transponder
Expedition	1997-02	RED/BLUE	DBLUE/GRN	GRAY/YEL	RED/BLACK	BLK/LGRN(+)	L GREEN (+)	WHITE/PINK	D.GREEN/PURPLE (-)	BROWN (+)	D BLUE (-)	Equipped with Transponder
Explorer	1991-01	RED/BLUE	LGRN/PURP	GRAY/YEL	2ND GRY/YEL	BLK/LGRN(+)	L GREEN (+)	TAN/YELLOW	D GREEN/PURPLE (-)	WHITE/BLACK (+)	BLACK (-)	Equipped with Transponder from 1998+
Explorer	2002	RED	RED/GRN	N/A	N/A - Transponder	GRN/LTGRN	L GREEN (+)	BLU/GRN	D GREEN/PURPLE (-)	BROWN (+)	YEL/GREEN	Equipped with Transponder from 1998+
F-150 / F-250	1994-02	RED/BLUE	DBLUE/GRN	BLACK/RED	2ND GRY/YEL	BLK/LGRN(+)	L GREEN (+)	RED/GREEN	GREEN/VIOLET	BROWN (+)	YEL/LGREEN (-)	
F-250 / F-350	1994-02	RED/BLUE	RED/BLACK	GRAY/YEL	2ND GRY/YEL	BLK/LGRN(+)	L GREEN (+)	WHITE/PINK	D GREEN/PURPLE (-)	BROWN (+)	YEL/LGREEN (-)	
Mustang	1998-02	WHT/PINK	RED/GREEN	RED/BLACK	GRAY/YEL	BLK/GRN	RED/LT-GREEN	ORANGE/WHT	N/A	BROWN +	PPL/ORNG (-)	equipped with transponder/use relay for ing 3
Mustang	1994-98	WHT/PINK	TAN/WHT	GRY/YEL	GRAY/YEL	BLK/GRN	GREEN OR RED/GRN	TAN/YELLOW	DK-GREEN/PPL	BROWN (+)	YEL/LT-GRN	96 & UP MAY equipped WITH TRANSPONDER KEY.
Probe	1996-97	GREEN	BLK/PINK	BLK/RED	N/A	BLUE/YEL	WHT/GREEN	GREEN	N/A	ORANGE	GRN/ORNG (-)	

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Make/model	Year	START	IGN 1	IGN 2	IGN 3/THEFT	ACC	BRAKE LIGHTS	TACH	ALARM DISARM	PARKING LIGHTS	HORN	NOTE
Ranger	1995-02	RED/BLUE	LGRN/PURP	GRAY/YEL	2ND GRY/YEL	BLK/LGRN(+)	L GREEN (+)	TAN/YELLOW	D GREEN/PURPLE (-)	BROWN (+)	YEL/LGREEN (-)	Equipped with Transponder
Taurus	1996-02	RED/BLUE	RED/GREEN	GRAY/YEL	RED/BLK	BLK/GRN	RED/LT-GREEN	TAN/YELLOW	PINK/WHITE	BROWN (+)	Ppl or Grn/Orang	96 & UP MAY equipped WITH TRANSPONDER KEY.
Taurus	1992-95	WHT/PINK	RED/GREEN	GRAY/YEL	GRAY/YEL	BLK/GRN	RED/LT-GREEN	TAN/YELLOW	N/A	BROWN (+)	YEL/LT-GRN	Equipped with 2 or 3 GRAY/YEL external relay is required
Thunderbird	1994-97	RED/BLUE	RED/GREEN	GRAY/YEL	GRAY/YEL	BLK/GRN	LT-GREEN	WHT/PNK OR ORG/WHT*	DK-GREEN/PPL	BROWN (+)	DK-BLUE	2GRY/YEL EXT RELAY REQ, TACH ALSO TAN/YEL
Windstar	1999-02	GREEN	WHITE/YEL	BLACK	VIO/ORNG	BLACK/GRN	RED/GREEN (+)	BLUE/GREEN	BLUE/BLACK (-)	BLACK/GREEN	GRN/ORNG (-)	Require 50 Ohms resistor with parking light
Windstar	1996-98	RED/BLUE	RED/LT.GRN	BLK/LGRN	2ND GRY/YEL	BLACK/PINK	RED/GREEN (+)	WHITE/PINK	D GREEN/PURPLE (-)	WHITE/BLACK (+)	YEL/LT. BLUE (-)	
GEO												
Metro	1995-99	RED/ YEL	BLUE / BLK	RED/GRN	N-A	BLK/RED OR BLU/RED	GREEN / WHT	BROWN	N-A		BLUE / BLK(-)	
Prizm	1994-99	BLK / WHT	BLACK	BLK / YEL	N-A	BLUE / RED	WHITE (+)	WHITE	N-A		GRN / RED(-)	
Prizm	1995	BLK / WHT	BLK/ORG OR BLK	BLK/YEL	N-A	BLUE / RED	GREEN / WHT	BLACK(-)	N-A	GREEN	GRN / RED(-)	
Tracker	1989-98	BLACK/YEL	BLK/WHITE	YEL/BLACK	N/A	BLUE	GREEN/WHITE (+)	BROWN	N/A	RED/YELLOW (+)	BLACK (-)	
GMC												
Denali	1999-02	YELLOW	PINK	WHITE	N/A	ORANGE	WHITE (+)	WHITE/VIOLET	WHITE	BROWN (+)	BLACK (-)	1998 + Equipped with PASSLOCK II
Envoy Series	1999-02	YELLOW	PINK	WHITE	N/A	ORANGE	WHITE (+)	WHITE	N/A	BROWN (+)	BLACK (-)	1998 + Equipped with PASSLOCK II
G Serie Van	1985-95	YELLOW	PINK	WHITE 95+	N/A	ORANGE	WHITE (+)	WHITE	N/A	BROWN (+)	BLACK (-)	
Jimmy	1985-97	YELLOW	PINK	WHITE 95+	N/A	ORANGE	WHITE (+)	WHITE	N/A	BROWN (+)	BLACK (-)	
Jimmy S-15	1998-01	YELLOW	PINK	WHITE	N/A	ORANGE	WHITE (+)	WHITE	N/A	BROWN (+)	BLACK (-)	1998 + Equipped with PASSLOCK II
Safari	1986-02	YELLOW	PINK	WHITE 95+	N/A	ORANGE	WHITE (+)	WHITE	N/A	BROWN (+)	BLACK (-)	1998 + Equipped with PASSLOCK II
Savana	1996-02	YELLOW	PINK	WHITE	N/A	ORANGE	WHITE (+)	WHITE	N/A	BROWN (+)	BLACK (-)	1998 + Equipped with PASSLOCK II
Sierra	1996-02	YELLOW	PINK	WHITE 95+	N/A	ORANGE	WHITE (+)	WHITE	N/A	BROWN (+)	BLACK (-)	1998 + Equipped with PASSLOCK II
Sierra	1987-95	YELLOW	PINK	ORANGE	N/A	BROWN	WHITE (+)	WHITE	N/A	BROWN (+)	BLACK (-)	
Sonoma	1996-02	YELLOW	PINK	WHITE	N/A	ORANGE	WHITE (+)	WHITE	N/A	BROWN (+)	BLACK (-)	1998 + Equipped with PASSLOCK II
Sonoma	1991-95	YELLOW	PINK	ORANGE	N/A	BROWN	WHITE (+)	WHITE	N/A	BROWN (+)	BLACK (-)	
Suburban	2000-02	YELLOW	PINK	WHITE	N/A	ORANGE	WHITE (+)	VIOLET/WHITE	GREEN (-)	BROWN (+)	BLACK (-)	
Suburban	1996-98	YELLOW	PINK	WHITE	N/A	ORANGE	WHITE (+)	WHITE	N/A	BROWN (+)	BLACK (-)	1998 + Equipped with PASSLOCK II
Suburban	1992-95	YELLOW	PINK	ORANGE	N/A	BROWN	WHITE (+)	WHITE	N/A	BROWN (+)	BLACK (-)	
Yukon / Tahoe	1992-99	YELLOW	PINK	WHITE 96+	N/A	ORANGE	WHITE (+)	WHITE	N/A	BROWN (+)	BLACK (-)	1998 + Equipped with PASSLOCK II
Honda												
Accord	1994-02	BLK/WHT	BLK/YEL	YELLOW	See Note	WHT/BLK	GREEN/WHITE	BLUE	Red/Yel 98+ blue dr door	RED/BLACK (+)	BLUE	Many 98+ are equipped with transponder key
Civic	1994-02	BLK/WHT	BLK/YEL	YELLOW	See Note	WHT/BLK	GREEN/WHITE	BLUE	N/A	RED/BLACK (+)	BLUE/RED (-)	Many 98+ are equipped with transponder key
CRV	1997-01	BLK/WHT	BLK/YEL	YELLOW	N/A	WHT/BLK	GREEN/WHITE (+)	BLUE	N/A	RED/BLACK (+)	GRAY	
Delsol	1995-98	BLK/WHT	BLK/YEL	YELLOW	N/A	WHT/BLK	GREEN/WHITE	BLUE	N/A	RED/BLACK (+)	BLUE/RED (-)	
Odyssey	1999-02	BLK/WHT	BLK/YEL	YELLOW	N/A	WHT/BLK	WHT/BLK	BLUE	BLUE	RED/BLACK (+)	L GRN/BLUE (-)	1999 + Equipped with Transponder
Odyssey	1996-98	BLK/WHT	BLK/YEL	YELLOW	N/A	WHT/BLK	GREEN/WHITE (+)	BLUE	N/A	RED/BLACK (+)	L GRN/BLUE (-)	2000 + Equipped with Transponder
Odyssey	1995	BLK/WHT	BLK/YEL	WHITE	N/A	WHT/BLK	GREEN/WHITE (+)	BLUE	WHITE/RED (-)	RED/BLACK (+)	L GRN/BLUE (-)	
Passport	1998-02	BLK/WHT	BLK/YEL	YELLOW	N/A	WHT/BLK	WHT/BLK	BLUE	BLUE	RED/BLACK (+)	L GRN/BLUE (-)	1999 + Equipped with Transponder
Passport	1996-98	WHT/BLUE	BLACK/RED	BLK/YEL	N/A	BLUE/BLACK	RED (+)	BLACK/RED	N/A	GREEN/PINK (-)	D GREEN (-)*	96-97 Horn wire is ORG/BLK (-)
Passport	1995	BLK/WHT	BLK/YEL	N/A	N/A	BLUE OR BLK	RED (+)	BLUE(2.6L)*	N/A	GREEN/RED (+)	BLK/ORANGE(-)	*3.2L wire is BLK/RED
Prelude	1997-02	BLK/WHT	BLK/YEL	YELLOW	N/A	WHT/BLK	GREEN/WHITE	BLUE	N/A	RED/BLACK (+)	N/A	98+ are equipped with transponder key
Prelude	1987-96	BLK/WHT	BLK/YEL	YELLOW	N/A	WHT/BLK	GREEN (+)	BLUE	N/A	RED/BLACK (+)	BLUE/BLACK (-)	
Hummer												
General Hummer	1992-98	Drk Green	Lt-Green	Gray	N/A	Orange	Red			White (+)		
Hyundai												
Accent	2000-02	WHITE	GREEN	YELLOW	N/A	BLUE	PINK/BLACK	BLUE OR BROWN	N/A	GREEN (-)	BLUE/ORANGE	
Accent	1999-00	BLUE/YEL	BLACK/WHT	BLUE/WHITE	N/A	BLUE	GRENN (+)	BLUE/RED	N/A	RED/BLACK (+)	BLK/WHITE (-)	Tach at PCM pin 47 left side of dash.
Accent	1995-98	YEL/RED	WHITE/BLUE	BLK/WHITE	N/A	RED/WHITE	GREEN/BLACK(+)	WHITE	N/A	N/A	BLK/WHITE (-)	
Elantra	2001-02	WHITE	RED	RED	N/A	YELLOW	WHITE	BLUE	N/A	BLUE (-)	RED	Equipped with Transponder
Elantra	1991-00	BLK/YEL	BLK/WHT	BLUE/RED	N/A	BLUE	GREEN/BLACK(+)	WHITE	N/A	GREEN/WHITE (+)	BLK/WHITE (-)	
Scoupe	1991-95	BLACK/YEL	BLK/WHT	BLUE	N/A	BLUE/WHT	GREEN (+)	WHITE	N/A	GREEN/WHITE (+)	BLK/WHITE (-)	
Sonata	1999-02	YELLOW	PINK	ORANGE	N/A	BROWN	LT-BLUE (+)	WHITE	LT-GREEN/BLACK (-)	LT-BLUE	YELLOW (-)	
Sonata	1989-98	YEL/RED	RED/BLACK	BLUE/WHT	N/A	BLK/WHT	GREEN(+)	WHITE	N/A	GREEN/WHITE (+)	GRN/BLK (-)	
Tiburon	1997-02	YEL/RED	BLK/WHT	N/A	N/A	N/A	GREEN/WHITE	N/A	N/A	N/A	N/A	N/A
Infinity												
I30	2002	BLK/WHT	BLACK/RED	RED/YELL	See Note	WHT/BLUE	RED/GREEN (+)	WHITE/GREEN	ORANGE/BLUE	RED/BLUE (+)	GREEN/WHITE	May have Transponder
G20	1999-02	BLK/YEL	BLK/WHT	BLUE	See Note	N-A	GRN/RED	BLU/BLK	N-A	RED/BLUE (+)	N/A	2Th start wire white/green. May have Transponder
G20	1991-97	BLK/WHT	BLACK/RED	N/A	N/A	WHT/BLUE	RED/GREEN (+)	WHITE	GREEN/YELLOW (-)	RED/BLUE (+)	GRN/WHITE (-)	
I30	2000-01	BLK/BLUE	BLACK/RED	RED	N/A	WHITE/BLUE	RED/GREEN (+)	WHITE/GREEN	GREEN/YELLOW (-)	RED/GREEN (+)	GRN/WHITE (-)	
I30	1998-00	BLK/BLUE	BLACK/RED	RED	N/A	WHITE/BLUE	RED/GREEN (+)	WHITE/GREEN	GREEN/YELLOW (-)	RED/GREEN (+)	GRN/WHITE (-)	2Th start wire black/red, transponder equipped
I30	1996-98	BLK/GRN	BLACK/RED	RED/YEL	N/A	WHT/BLUE	RED/GREEN (+)	WHITE/GREEN	GREEN/YELLOW (-)	RED/GREEN (+)	GRN/WHITE (-)	
J30	1993-97	BLACK/YEL	WHITE/BLK	N/A	N/A	BLACK/RED	PURPLE (+)	BLUE/WHITE	GREEN/RED (-)	WHITE/BLUE (+)	GRAY/YEL (-)	
Q45	1999-02	BLK/WHITE	BLK/RED	N/A	See Note	WHITE/RED	RED/YELLOW(+)		LT-GREEN/RED (-)	YELLOW/RED (-)	GREEN/RED (-)	May have Transponder
Q45	1997-98	BLK/RED	BLK/WHT	N/A	N/A	BLUE	RED/GREEN (+)	BLACK/GREEN	SKY BLUE (-)	RED/YELLOW (+)	WHITE/GRN (-)	
Q45	1990-96	BLK/RED	BLK/WHT	N/A	N/A	BLUE	RED/GREEN (+)	BLUE/GREEN	SKY BLUE (-)	RED/YELLOW (+)	WHITE/GRN (-)	
QX4	2001-02	BLK/YEL	BLK/WHT	WHT/BLUE	N/A	RED/YELLOW	GREEN/YELLOW	WHITE/GREEN	LT. GREEN (-)	PINK/BLUE (+)	LT. GRN/BLACK	2000 + Equipped with Transponder
QX4	1996-00	BLK/WHT	BLK/YEL	RED/YEL	N/A	WHITE/BLUE	GREEN/YELLOW	WHITE	LT. GREEN (-)	PINK/BLUE (+)	LT. GRN/BLACK	
Isuzu												
Amigo	1998-00	BLACK/WHT	BLACK/YEL	BLACK/RED	N/A	BLUE	RED	BLACK/RED	YELLOW/BLUE	GREEN/RED (+)	DK-GREEN (-))	
Isuzu Trooper	1999-02	BLK/WHT	BLACK/YEL	BLACK/RED	N/A	BLUE	GREEN/YELL	BLACK/RED	BROWN/RED	YELLOW	GREEN (-)	
Isuzu Trooper	1996-98	BLK/WHT	BLACKYEL	BLACK/RED	N/A	BLUE	GREEN/YELL	BLACK/RED	ORANGE/BLACK(-)	GREEN (-)	BLK/ORANGE(-)	
Amigo	1990-94	BLACK/WHT	BLACK/YEL	N/A	N/A	BLUE	RED	WHITE	N/A	GREEN/RED (+)	GREEN/RED (-)	
Axiom	2001-02	BLK/WHT	BLK/RED	BLLK/YEL	N/A	BLUE	RED	BLK/RED	BLUE/YELLOW (-)	GREEN/RED (+)	ORANGE (-)	
Hombre	1999-02	YELLOW	PINK	WHITE	N/A	ORANGE	VIOLET	WHITE	N/A	LT-BLUE (-)	BLACK (-)	1998 + Equipped with Passlock II
Hombre	1996-97	YELLOW	PINK	WHITE	N/A	ORANGE	WHITE(+)	WHITE	N/A	BROWN (+)		
Oasis	1999-02	BLACK/WHT	BLACK/YEL	YELLOW	N/A	WHITE/BLK	GREEN/WHITE (+)	BLUE	BLACK/RED (-)	RED/BLACK (+)	BLUE/RED (-)	Alarm disarm wire in driver door
Oasis	1996-00	BLK/WHITE	BLACK/YEL	YELLOW	N/A	WHITE/BLK	GREEN/WHITE (+)	BLUE	N/A	RED/BLACK (+)	L GRN/BLUE (-)	
Oasis	1996	BLACK/WHT	BLACK/YEL	YELLOW	N/A	WHT/BLK	GREEN/WHITE (+)	BLUE	N/A	RED/BLACK (+)	L GRN/BLUE (-)	
Rodeo	1998-02	BLACK/WHT	BLACK/YEL	BLACK/RED	N/A	BLUE	RED	BLACK/RED	YELLOW/BLUE	GREEN/RED (+)	GREEN (-)	
Trooper	1999-02	BLACK/WHT	BLACK/YEL	BLACK/RED	N/A	BLUE	GREEN/YELLOW	BLACK/RED	BROWN/RED	YELLOW (-)	GREEN (-)	
Trooper	1996-98	BLK/WHT	BLK/YEL	BLACK/RED	N/A	BLUE	GREEN/YELLOW	BLACK/RED	ORANGE/BLACK(-)	GREEN(-)	BLK/ORANGE(-)	
Trooper	1994-95	WHT/GRN	BLK/GRN	BLACK/RED	N/A	BLUE/BLK	GREEN/YELLOW	BLACK/RED	BLUE/YELLOW (-)	GREEN/RED (+)	BLK/ORANGE(-)	
Trooper	1992-93	BLK/WHT	BLK/YEL	BLACK/RED	N/A	BLUE	GREEN/YELLOW	BLK/RED	N/A	GREEN/RED (+)	GREEN/WHT(-)	
Vehicross	1999-02	BLACK/WHT	BLACK/YEL	BLACK/RED	N/A	BLUE	RED	BLACK/RED	N/A	YELLOW (-)	GREEN (-)	

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Make/model	Year	START	IGN 1	IGN 2	IGN 3/THEFT	ACC	BRAKE LIGHTS	TACH	ALARM DISARM	PARKING LIGHTS	HORN	NOTE
Jeep												
Cherokee	1997-01	YELLOW	D BLUE	BLK/ORANGE	N/A	BLK/WHT	WHITE/GREEN	GRAY	VIOLET/YELLOW (-)	BLACK/YEL	BLK/RED	
Cherokee	1993-95	YELLOW	D BLUE	ORANGE	N/A	VIOLET	WHITE/TAN (+)	BLACK/GRAY	PURPLE/YELLOW	D BLUE/RED (+)	BLACK/RED (-)	
Cherokee	1991-92	YELLOW	D BLUE	ORANGE	N/A	VIOLET	WHITE/TAN (+)	GRAY	PURPLE/YELLOW	D BLUE/RED (+)	BLACK/RED	
Grand Cherokee	1999-02	YELLOW	D BLUE	BLACK/ORG	N/A	BLK/WHT	WHITE/TAN (+)	n/a	BLACK (-) in driver door	BLACK/YELLOW (+)	BLACK/RED	SEE SPECIAL NOTE FOR PARKING LIGHT
Grand Cherokee	1996-98	YELLOW	BLUE/GRAY	BLACK/ORG	N/A	RED/BLACK	WHITE/TAN (+)	GRAY/WHITE	VIOLET/YELLOW (-)	D BLUE/RED (+)	GRAY/ORG	
Grand Cherokee	1993-95	YEL/BLUE	BLUE/GRAY	ORG/BLK	N/A	BLK/WHT	WHITE/TAN (+)	GRAY/WHITE	VIOLET/YELLOW (-)	DARK BLUE/RED (+)	GRAY/ORG	
Liberty	2002											
Wrangler	1997-02	YELLOW	D BLUE	BLACK/ORG	N/A	BLK/WHT	WHITE/TAN (+)	GRAY	N/A	BLACK/YELLOW	RED/YELLOW	
Wrangler	1993-96	YELLOW	D BLUE	BLACK/ORG	N/A	BLK/WHT	WHITE/TAN (+)	GRAY	N/A	BLACK/YELLOW	BLACK/RED(-)	
Wrangler	1991-92	GREEN	YELLOW	VIOLET		ORANGE	L BLUE	YEL/BLK	N/A	BLUE/RED (+)	BLK OR ORG/WHT	
Kia												
Sephia	1994-98	BLACK/YEL	BLACK/WHT	BLUE/RED	N/A	N/A	GRN/YELLOW (+)	YELLOW/GRN	BLUE/YELLOW(+)	RED/GREEN (+)	N/A	
Sportage	1995-98	BLK/YEL	BLK/WHT	BLUE	N/A	BLK/RED	GREEN/YELLOW	YELLOW/GRN	RED/GREEN (-)	RED/GREEN (+)	GREEN/ORG(-)	
Sephia	1999-00	RED	YELLOW	BLUE	N/A	GREEN	RED/BLACK	YELLOW/WHT	N/A	RED/GREEN (+)	BLUE/RED (-)	
Sportage	1999-02	BLACK/RED	BLACK/YEL	BLK/WHT	N/A	BLUE	ORG/BLK	n/a	RED/GREEN (-)	BLACK/RED (-)		
Sephia	2000-02	BLACK/YEL	WHITE/BLUE	WHITE	N/A	GREEN	RED/BLACK	YELLOW/WHITE		PINK/BLACK	GREEN/ORANGE	
LEXUS												
ES 300	1999-01	RED	BLACK/RED	BLACK/YEL	Transponder	BLUE/RED	GREEN/WHITE	BLACK	RED/GREEN (-)	GREEN/BLACK (+)	GREEN/BLACK	Equipped with Transponder
ES 300	1997-98	BLACK/WHT	BLACK/ORG	BLACK/YEL	N/A	PINK/BLUE	GREEN/WHITE (+)	BLACK	RED/BLUE (-)	GREEN (+)	GRN/BLACK (-)	Equipped with Transponder
ES 300	1992-96	BLACK/WHT	BLACK/ORG	BLACK/YEL	N/A	PINK/BLUE	GREEN/WHITE (+)	BLACK	YELLOW/BLUE	GREEN (+)	GRN/BLACK (-)	
GS300	1998-02	BLACK	BLACK/YELLOW	BLACK/WHITE	See Note	BLUE/YELLOW	GREEN/WHITE	BLACK/YELLOW		GREEN`	GRN/BLACK (-)	May have Transponder
GS300	1993-97	BLK/BLUE	BLACK/ORG	BLACK/YEL	N/A	YELLOW	GREEN/RED (+)	BLACK	RED/BLACK (-)	GREEN/RED (+)	GRN/WHITE (-)	1998 + Equipped with Transponder
GS400	1998-02	BLACK/RED	BLACK/ORG	BLACK	N/A	WHITE/GRN	GREEN	YEL/WHITE	GREEN (-)	GREEN (+)	GREEN (-)	
LS 400	1996-00	BLACK/RED	BLACK/ORG	BLACK	See Note	WHITE/GRN	GREEN	YEL/WHITE	GREEN (-)	GREEN (+)	GREEN (-)	1998 + May have Transponder
LS 400	1990-95	RED	BLACK/ORG	BLACK/YEL	N/A	PINK/BLUE	GREEN/WHITE (+)	BLACK	GREEN (-)	GREEN/ORANGE (+)	GREEN/RED (-)	
LS 430	2001-02	BLACK/WH	BLACK	RED/WHITE	N/A	WHITE/GREEN	GREEN/ORANGE	BLACK/YELLOW	W/ UNLLOCK	RED/YELLOW (-)		Equipped with Transponder
LX450	1996-97	BLACK/WHT	BLACK/RED	BLACK/YEL	N/A	BLUE/RED	GREEN/WHITE (+)	BLACK	L GREEN (-)	GREEN (+)	GREEN/RED (-)	
LX470	1998-00	BLACK/WHT	BLACK/BLUE	BLACK/RED	N/A	BLACK	GREEN/WHITE (+)	BLACK/WHITE	BLUE/YELLOW (-)	GREEN (+)	GREEN/ORG(-)	
RX 300	1999-02	BLACK/WHT	BLKACK/YEL	BLACK/WHT	N/A	PINK	GREEN/WHITE (+)	ORANGE	DISARM WHEN START	GREEN (+)	WHITE/RED	Equipped with Transponder
SC300	1995-01	BLK/WHITE	BLACK/ORG	BLACK/YEL	N/A	RED	GREEN/WHITE (+)	BLACK	GREEN (-)	GREEN (+)	GREEN/RED (-)	1998 Eqiuped with Transponder
SC300	1992-97	BLK/BLUE	BLACK/ORG	BLACK/YEL	N/A	YELLOW	GREEN/WHITE (+)	BLACK	RED/BLACK (-)	GREEN (+)	GRN/WHITE (-)	
SC400	1992-01	BLACK/WHT	BLACK/ORG	BLACK/YEL	See Note	RED	GREEN/WHITE (+)	BLACK	GREEN (-)	GREEN (+)	GREEN/RED (-)	1998 + May have Transponder
Lincoln												
Continental	1998-02	RED/LT.BLU	BRWN/PINK	GRAY/YEL	GRAY/YEL	BLK/LT.GRN	LT. GREEN	LT.GRN/WHITE	DK. GREEN/PURPLE (-)	ORANGE/BLACK (+)	DK. BLUE (-)	Some are equipped with Transponder
Continental	1987-95	RED/LT.BLU	RED/LT GRN	GRAY/YEL	N/A	BLK/LT.GRN	LT. GREEN	DK GRN/YEL	DK. GREEN/PURPLE (-)	BROWN	YEL/LT.GREEN	
LS	2000-02	GRAY/BLK	GREEN/BLK	YELLOW	PINK/YEL	PINK/WHT	ORANGE/YEL(+)		GRAY/ORANGE (-)	BLUE/BLACK (+)		Equipped with Transponder
Mark VIII	1997-99	RED/BLACK	WHT/YEL	BLACK/YEL	D GRN/YEL	BRN/ORG	LT. GREEN	DK GRN/YEL	DK. GREEN/PURPLE (-)	WHITE/BLACK (+)		Late model equipped with Transponder
Navigator	1997-02	RED/LBLUE	D BLUE/GRN	GRAY/YEL	RED/BLACK	BLACK/LGRN	L GREEN (+)	WHITE/PINK	D GREEN/PURPLE (-)	BROWN (+)	D BLUE (-)	Equipped with Transponder
Towncar	1998-02	RED/LTBLU	WHITE/YEL	GRAY/YEL	PINK/BLK	BLK/LT.GRN	LT. GREEN	WHITE/RED	N/A	BROWN	DK. BLUE (-)	
Towncar	1992-97	WHT/PINK	BRWN/PINK	PINK/BLACK	BLK/GREEN	RED/GREEN	LT-GREEN	TAN/YELLOW	DK. GREEN/PURPLE (-)	BROWN	DK. BLUE (-)	Has a second acc wire Black/lt-Green
Mazda												
626/	2000-02	GREEN	BLACK/WHT	BLACK/RED	N/A	BLUE	WHITE/GREEN (+)	RED		RED/WHITE	GREEN/RED	Equipped with Transponder
626/	1998-99	GREEN	BLK/WHITE	BLACK/RED	N/A	N/A	WHITE/GREEN (+)	YELLOW	N/A	RED	N/A	
626/	1993-96	BLACK/YEL	BLACK/WHT	BLACK/RED	N/A	BLUE	WHITE/GREEN (+)	GREEN	N/A	ORANGE (+)	GREEN/ORG (-)	
929/	1988-96	WHITE/RED	BLK/WHITE	BLACK/RED	N/A	BLUE	WHITE (+)	RED/BLUE	N/A	BROWN/WHITE	GREEN/RED (-)	
B-Series	1994-00	RED/L BLUE	LGRN/PURP	GRAY/YEL	2GRAY/YEL	BLACK/LGRN	L GREEN (+)	TAN/YELLOW	D GREEN/PURPLE (-)	BROWN (+)	YEL/L GRN(-)	
Millenia	2001-02	BLACK/YELL	BLACK/WHITE	BLACK/RED	N/A	BLUE	WHITE/GREEN (+)	GREEN/BLUE	W/ UNLOCK	ORANGE	GREEN/RED	Equipped with Transponder
Millenia	1998-00	BLACK/YEL	BLACK/WHT	BLACK/RED	N/A	BLUE	GREEN/BLACK	GREEN/BLUE	LT-GREEN/RED (-)	GREEN (-)	GREEN/ORANGE	Equipped with Transponder
Millenia	1995-98	BLACK/YEL	BLACK/WHT	BLACK/RED	N/A	BLUE	WHITE/GREEN (+)	GREEN/BLUE	GREEN/RED	ORANGE (+)	GREEN/RED(-)	
MPV	2000-02	BLUE/YEL	BLUE	RED/BLK	N/A	BLACK/RED	D.GREEN/YEL	RED/YEL	L. GREEN	L.GREEN/BLK	GREEN/RED (-)	Equipped with Transponder
MPV	1998-99	BLACK/YEL	BLACK/WHT	N/A	N/A	BLACK/RED	WHITE/GREEN	LT.GRN/RED	N/A	RED/WHITE (+)	N/A	
MPV	1996-97	BLK/YEL	BLK/WHT	BLACK/RED	N/A	YEL/Blk or Blu	WHITE/GREEN	RED/YEL	N/A	RED/WHITE (+)	GREEN/RED (-)	
MPV	1991-95	BLK/YEL	BLK/WHT	BLACK/RED	N/A	BLUE	WHITE/GREEN	Wht/Blk or Wht	N/A	RED/WHITE (+)	GREEN/ORG(-)	
MX3	1994-95	BLK/BLUE	BLUE	BLACK/RED	N/A	BLK/WHITE	GREEN	YELLOW/BLUE	N/A	RED/BLACK (+)	GREEN/BLK (-)	
MX5 / Miata	1999-02	WHITE/BLK	RED/BLACK	N/A	N/A	GREEN/RED	LT-GREEN	YELLOW/BLUE	N/A	RED/BLACK (+)	GREEN/RED (-)	
MX5 / Miata	1990-98	BLK/BLUE	BLUE	BLACK/RED	N/A	BLK/WHITE	GREEN	YELLOW/BLUE	N/A	RED/BLACK (+)	GREEN/ORG (-)	
MX6	1988-97	BLACK/YEL	BLACK/WHT	BLACK/RED	N/A	BLUE	WHITE/GREEN (+)	GREEN	N/A	RED/WHITE	GREEN/ORG (-)	
Navajo	1991-94	RED/L BLUE	RED/L.GRN	GRAY/YEL	2GRAY/YEL	BLACK/LGRN	GREEN	TAN/YELLOW	N/A	BROWN (+)	YEL/LT GRN	
Protégé	1990-02	BLK/BLUE	BLUE	BLACK/RED	N/A	BLK/WHITE	GREEN/YEL (+)	WHITE	N/A	RED/BLACK (+)	GREEN/ORG (-)	
RX7	1993-95	BLK/BLUE	BLACK/WHT	BLACK/YEL	N/A	BLUE	GREEN	YELLOW/BLUE	N/A	RED/BLACK (+)	GREEN/ORG (-)	
Mercedes Benz												
ML320	1998-00	WHITE	TAN	ORANGE	N/A	GRAY	TAN	BLUE	WHITE (-)	LT. GREEN	N/A	
Mercury												
Capri	1991-94	BLACK/YEL	BLACK/WHT	BLACK/RED	N/A	BLUE	WHITE/GREEN (+)	YELLOW/BLUE	N/A	WHITE/GREEN	GREEN/RED (-)	
Cougar	1999-02	GRAY/WHT	GREEN	N/A	N/A	YELL/GREEN	ORANGE/BLUE	BROWN/BLUE	N/A	RED/BLUE (+)	BLACK/BLUE (-)	Equipped with Transponder
Cougar	1989-97	RED/L.BLUE	RED/L.GRN	GRAY/YEL	2GRAY/YEL	BLK/L.GRN	LT GREEN (+)	WHITE/PINK	DARK GRN/PURPLE (-)	BROWN (+)	DARK BLUE (-)	
Grand Marquis	1989-02	WHITE/PINK	BROWN/PINK	PINK/BLACK	2GRAY/YEL	BLK/L.GRN	LT GREEN (+)	TAN/YELLOW	N/A	BROWN (+)	YEL/L.GREEN	Late model equipped with Transponder.
Mountaineer	1997-01	RED/L BLUE	LGRN/PURP	GRAY/YEL	2GRAY/YEL	BLACK/LGRN	L GREEN (+)	TAN/YELLOW	D GREEN/PURPLE (-)	WHITE/BLACK (+)	BLACK (-)	Equipped with Transponder
Mountaineer	2002	RED	RED/GREEN	N/A	N/A	GREEN/L.GRN	L.GREEN	BLUE/GREEN	GREEN/PURPLE	BROWN (+)	YELLOW/GRN	Equipped with Transponder
Mystique	1995-00	GRAY/WHT	GREEN	N/A	N/A	YELLOW	ORANGE/YEL(+)	WHITE/BLACK	N/A	RED/BLUE (+)	BLACK/BLUE (-)	
Sable	1989-02	RED/L.BLUE	RED/L.GRN	GRAY/YEL	2GRAY/YEL	RED/BLACK	RED/GREEN (+)	TAN/YELLOW	LT. GREEN/PURPLE (-)	BROWN (+)	PURPLE/ORG (-)	
Topaz	1986-94	WHITE/PINK	RED/L.GRN	GRAY/YEL	2GRAY/YEL	BLK/L.GRN	RED/GREEN (+)	TAN/YELLOW	N/A	BROWN (+)	YELLOW/L.BLUE	
Tracer	1989-98	BLK/D.BLUE	DARK BLUE	BLACK/RED	N/A	BLK/WHITE	DARK GREEN	YEL/D.BLUE	N/A	RED/BLACK (+)	DRK GRN/ORG	
Tracer Wagon	1993-95	BLK/D.BLUE	DARK BLUE	BLACK/RED	N/A	BLK/WHITE	DARK GREEN	YEL/D.BLUE	N/A	RED/BLACK (+)	DRK GRN/ORG	
Villager	1995-02	RED	BROWN	RED/GREEN	N/A	WHITE/GRN	YEL/BLACK (+)	GREEN/WHITE	RED/BLACK (-)	ORANGE/BLACK (-)	YELLOW (-)	
Villager	1993-94	RED	WHITE/RED	BROWN	N/A	WHITE/GRN	YEL/BLACK (+)	BLUE	N/A	PINK	BLK OR YEL	
Mitsubishi												
3000GT	1991-99	BLACK/YEL	BLK/WHITE	BLUE/BLK	N/A	BLUE	GREEN (+)	WHITE/BLACK	LIGHT GREEN	ORANGE/SILVER	GREEN/BLACK	
Diamante	1998-02	BLACK/RED	BLK/WHITE	BLUE/RED	N/A	BLUE/WHITE	GREEN/WHITE	N/A	UNLOCK WIRE	GREEN/WHITE (+)	GREEN/SILVER	Equipped with Transponder
Diamante	1992-97	BLACK/YEL	BLK/WHITE	BLUE/BLK	N/A	BLUE/WHITE	GREEN (+)	WHITE	N/A	GREEN/WHITE (+)	GREEN/RED (-)	

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Make/model	Year	START	IGN 1	IGN 2	IGN 3/THEFT	ACC	BRAKE LIGHTS	TACH	ALARM DISARM	PARKING LIGHTS	HORN	NOTE
Eclipse	2000-02	BLACK/RED	GREEN	BLUE/RED	N/A	BLUE/BLACK	GREEN/ORNG	WHITE	ORANGE (-)	PINK/BLACK (+)	VIOLET (-)	Equipped with Transponder
Eclipse	1991-99	BLACK/RED	BLK/WHITE	BLUE/BLK	N/A	BLUE	GREEN/WHITE	WHITE	GREEN/WHITE	GREEN/WHITE (+)	GREEN/RED (-)	
Eclipse Spider	1996-98	BLACK/RED	BLK/WHITE	BLUE/BLK	N/A	BLUE	GREEN/WHITE	WHITE	GREEN/WHITE	GREEN/WHITE (+)	GREEN/RED (-)	
Expo	1992-96	BLACK/YEL	BLK/WHITE	BLUE/BLK	N/A	BLUE	GREEN (+)	WHITE	N/A	GREEN/WHITE (+)	GREEN/BLACK	
Galant	1999-02	BLACK/YEL	WHITE/BLK	BLUE/BLK	N/A	BLUE/BLACK	GREEN/SYLVER	WHITE	BROWN/WHITE	GREEN/WHITE (+)	GREEN/WHITE	Equipped with Transponder
Galant	1987-98	BLACK/RED	BLK/WHITE	BLUE/BLK	N/A	BLUE/WHITE	GREEN (+)	BLK/YELLOW	N/A	GREEN/WHITE (+)	LIGHT GREEN(-)	
Mirage	1996-01	BLACK/YEL	BLK/WHITE	BLUE/BLK	N/A	BLUE/WHITE	GREEN (+)	WHITE	N/A	GREEN/WHITE (+)	WHITE/BLUE	
Montero	2001-02	BLK/YEL	BLUE/BLK	BLUE/RED	N/A	BLUE/BLK	BLUE/ORANGE		BROWN	GREEN/WHITE (+)	LT.GREEN/BLK	
Montero	1999-00	BLUE/BLK	BLK/WHITE	BLUE/RED	N/A	BLUE/YEL	GREEN	WHITE	N/A	GREEN/WHITE (+)	GRN/BLACK (-)	
Montero	1995-96	BLUE/BLK	BLK/WHITE	BLUE/RED	N/A	BLUE/YEL	GREEN	WHITE	N/A	GREEN/WHITE (+)	GREEN/BLK (-)	
Montero	1990-94	BLK/YEL	BLK/WHITE	BLUE/BLK	N/A	BLUE	GREEN	WHITE		GREEN/WHITE (-)	GREEN/BLK (-)	
Montero	1998	BLK/YEL	BLK/WHITE	BLUE/RED		BLUE	GREEN			GREEN/WHITE (+)		
Montero Sport	1997-02	Blk/Yel or Blu/Blk	BLK/WHITE	BLUE/RED	N/A	BLUE	GREEN	WHITE	N/A	GREEN/WHITE (-)	GREEN/BLK (-)	
Nissan												
200 SX	1995-98	BLK/WHITE	BLACK/RED	BKL/PINK	N/A	WHITE/BLUE	RED/GREEN (+)	BLUE/ORANGE	GREEN/YELLOW (-)	RED/BLUE (+)	GRAY/YEL (-)	
200SX	1989-90	BLK/YEL	BLK/WHT	N/A	N/A	WHITE/BLUE	L GRN/RED(+)	RED/WHT	N/A	GRN/BLK	N/A	
240 SX	1989-98	BLACK/YEL	BLACK/RED	N/A	N/A	WHITE/BLUE	RED/GREEN (+)	YELLOW/RED	GREEN/YELLOW (-)	RED/BLUE (+)	GRN/WHITE (-)	
300 ZX	1987-96	BLK/WHITE	BLACK/RED	N/A	N/A	BLUE	RED/BLACK	YELLOW/RED	GRAY/RED (-)	GREEN/RED (+)	GRN/WHITE (-)	
Altima	1998-01	BLK/YEL	BLACK/RED	BLACK/PINK	N/A	N/A	RED/GREEN (+)	LT. GRN/ORG	GREEN/YELLOW (-)	RED/BLUE (+)	N/A	
Altima	1993-97	BLK/WHITE	BLACK/RED	BLACK/PINK	1999 have Transponder	WHITE/BLUE	RED/GREEN (+)	BLUE/BLACK	GREEN/YELLOW (-)	RED/BLUE (+)	GRN/WHITE (-)	1999 have Transponder
Altima	2002	BLACK/YEL	BLACK/RED	RED	2001 have Transponder	WHITE/BLUE	RED/GREEN (+)		PINK/BLUE	RED/BLUE (+)	GREEN/WHITE	2001 have Transponder
Frontier	1998-02	BLACK/YEL	BLK/WHITE	RED/YEL	N/A	WHITE/BLUE	GREEN/YEL(+)	PINK/BLUE	L GREEN (-)	BLUE/RED (+)	LGRN/BLACK (-)	
Frontier/Pickup	1998-00	BLK/YEL	BLK/WHITE	RED/YEL	N/A	WHITE/BLUE	GREEN/YEL(+)	PINK/BLUE		BLUE/RED (+)	GRN/BLACK (-)	
Maxima	1999-01	BLK/BLUE	BLK/RED	RED	N/A	WHITE/BLUE	RED/GREEN (+)	WHITE/GREEN		RED/GREEN (+)	GRN/WHITE (-)	Equipped with Transponder
Maxima	1997-98	BLK/WHITE	BLACK/RED	BLACK/YEL	N/A	WHITE/BLUE	RED/GREEN (+)	WHITE/GREEN	GREEN/YELLOW (-)	RED/GREEN (+)	GRN/WHITE (-)	
Maxima	1995-96	BLK/WHITE	BLACK/RED	RED/YEL	N/A	WHITE/BLUE	RED/GREEN (+)	WHITE/GREEN	GREEN/YELLOW (-)	RED/GREEN (+)	GRN/WHITE (-)	
Maxima	1987-94	BLK/WHITE	BLACK/RED	BLACK/YEL	N/A	WHITE/BLUE	RED/GREEN (+)	WHITE/GREEN	GREEN/YELLOW (-)	RED/GREEN (+)	GRN/WHITE (-)	
Maxima	2002	BLK/WHITE	BLACK/RED	RED/YELLOW	N/A	WHITE/BLUE	RED/GREEN (+)	WHITE/GREEN	W/ UNLOCK	RED/BLUE (+)	GREEN/WHT	Equipped with Transponder
Pathfinder	1996-02	BLACK/YEL	BLK/WHITE	RED/YEL	N/A	WHITE/BLUE	GREEN/YEL(+)	WHITE	N/A	PINK/BLUE (+)	GRN/BLACK (-)	1999 + Equipped with Transponder
Pathfinder	1990-95	BLACK/YEL	BLK/WHITE	N/A	N/A	BLACK/BLUE	GREEN/YEL(+)	WHITE	N/A	PINK/BLUE (+)	GRN/BLACK (-)	
Pick-up	1987-97	BLACK/YEL	BLK/WHITE	N/A	N/A	BLACK/BLUE	GREEN/YEL(+)	WHITE or BLUE	N/A	PINK/BLUE (+)	GRN/BLACK (-)	
Quest	1996-02	BLK/GRN*	BROWN	RED/GREEN	N/A	WHITE/GRN	YEL/BLACK (+)	GREEN/WHITE	RED/BLACK (-)	ORANGE/BLACK (-)	YELLOW (-)	2 Start wires - 2nd wire is red
Quest	1993-95	RED/GRN*	WHITE/RED	BROWN	N/A	WHITE/GRN	YEL/BLACK (+)	BLUE	N/A	PINK	BLK OR YEL	2 Start wires - 2nd wire is red
Sentra	2000-02	BLACK/YEL	BLACK/RED	WHITE	N/A	WHITE/BLUE	RED/GREEN (+)	BLUE/ORANGE	WHITE/BLUE	WHITE/RED	WHITE/GRN	2002 Equipped with Transponder
Sentra	2000-02	BLK/WHITE	BLACK/RED	BLACK/PINK	N/A	WHITE/BLUE	RED/GREEN (+)	BLUE	GREEN/YELLOW (-)	RED/BLUE (+)	GRAY/YEL (-)	
Sentra	2000-03	BLK/WHITE	BLACK/RED	N/A	N/A	WHITE/BLUE	RED/GREEN (+)	BLUE/BLACK	N/A	RED/BLUE (+)	GRN/WHITE (-)	
Xterra	2000-04	BLACK/YEL	BLK/WHITE	RED/YEL	N/A	WHITE/BLUE	GREEN/YEL(+)	PINK/BLUE	L GREEN (-)	BLUE/RED (+)	LGRN/BLACK (-)	
OLDSMOBILE												
Acheiva	1993-98	YELLOW	PINK	WHITE	N/A	ORANGE	WHITE (+)	WHITE	N/A	BROWN (+)	BLACK (-)	
Alero	1999-01	YELLOW	PINK	DK-GREEN	N/A	ORANGE	WHITE (+)	VIOLET/WHT	N/A	BROWN (+)	BLACK (-)	Equipped with passlock II
Arora	2001-02	PURPLE	PINK	WHITE	N/A	ORANGE	WHITE	PURPLE/WHITE	L.GREEN	BROWN/WHITE	BLACK (-)	Equipped with passlock II
Arora	1995-99	YELLOW	PINK	PURP/WHT	WHITE	ORANGE	WHITE (+)	WHITE	N/A	BROWN (+)	BLACK (-)	Equipped with VATS System.
Bravada	1995-02	YELLOW	PINK	WHITE	N/A	ORANGE	WHITE (+)	WHITE	N/A	BROWN (+)	BLACK (-)	
Bravada	1991-94	YELLOW	PINK	ORANGE	N/A	BROWN	WHITE (+)	WHITE	N/A	BROWN (+)	BLACK (-)	
Cierra	1987-96	YELLOW	PINK	ORANGE	N/A	BROWN	WHITE (+)	WHITE	N/A	BROWN (+)	BLACK (-)	
Cruiser	1990-95											
Cutlass	1997-99	YELLOW	PINK	PURPLE	N/A	ORANGE	WHITE (+)	WHITE	N/A	BROWN (+)	BLACK (-)	Equipped whith Passlock II
Eighty-Eight	1992-98	YELLOW	PINK	ORANGE	LT. BLUE	BROWN	L BLUE (+)	WHITE	LT. GREEN (-)	LT. BLUE (+)	BLACK (-)	1992-1996 has no Ignition 3
Intrigue	1998-02	YELLOW	PINK	D.GREEN	N/A	ORANGE	WHITE (+)	WHITE	N/A	LT. BLUE (+)	BLACK (-)	Equipped whith Passlock II
LSS	1996-98	YELLOW	PINK	ORANGE	LT. BLUE	BROWN	L BLUE (+)	WHITE	LT. GREEN (-)	LT. BLUE (+)	BLACK (-)	
Ninety Eight	1994-96	YELLOW	PINK	ORANGE	LT. BLUE	BROWN	L BLUE (+)	WHITE	LT. GREEN (-)	LT. BLUE (+)	BLACK (-)	
Regency	1997-98	YELLOW	PINK	ORANGE	N/A	BROWN	WHITE (+)	WHITE	LT. GREEN (-)	LT. BLUE (+)	BLACK (-)	
Regency	1990-91	YELLOW	PINK	ORANGE	N/A	BROWN	WHITE (+)	WHITE	LT. GREEN (-)	LT. BLUE (+)	BLACK (-)	
Silhouette	1990-02	YELLOW	PINK	WHT or ORNG	N/A	ORNG or BRWN	WHITE (+)	WHITE	N/A	BROWN (+)	BLACK (-)	1998+ Equipped with Passkey III
PLMOUTH												
Acclaim	1989-95	YELLOW	DARK BLUE	BLACK/ORG	N/A	BLACK/WHT	WHITE/TAN (+)	BLACK/GRAY	N/A	BLACK/YELLOW (+)	BLACK/RED (-)	
Breeze	1996-02	YELLOW	DARK BLUE	BLACK/ORG	N/A	BLACK/WHT	WHITE/TAN (+)	BLACK/GRAY	N/A	BLACK/YELLOW (+)	BLACK/RED (-)	
Voyager	2001-02	YELLOW	PINK/WHT	N/A	N/A - Transponder		WHITE/BLK		VIOLET/Light BLUE	RED/BLACK (+)	GREEN/BLK (-)	(note: this vehicle needs 180 ohm resistor
Voyager	1996-00	YELLOW	BLUE	GRN/RED	N/A	BLK/ORG	WHITE/TAN (+)	BLUE/TAN	WHITE/RED (-)	BLACK/YELLOW (+)	BLACK (-)	
Voyager	1991-95	YELLOW	BLUE	BLK/ORG	N/A	BLK/WHT	WHITE/TAN (+)	BLACK/GRAY	N/A	BLACK/YELLOW (+)	BLACK/RED	
Colt	1987-94	BLACK/YEL	BLACK/WHT	BLUE/BLK	N/A	BLUE	GREEN	WHITE	N/A	GREEN/WHITE (+)	GREEN/BLK (-)	
Colt Vista	1993-94	BLACK/YEL	BLACK/WHT	BLUE/BLK	N/A	BLUE	GREEN	WHITE	N/A	GREEN/WHITE (+)	GREEN/BLK (-)	
Laser	1991-94	BLACK/YEL	BLACK/WHT	BLUE/BLK	N/A	BLUE	GREEN	WHITE	BROWN/WHITE	GREEN/WHITE (+)	GREEN/BLK (-)	
Neon	1995-02	YELLOW	DARK BLUE	BLACK/ORG	N/A	BLACK/WHT	WHITE/TAN (+)	GRAY/L BLUE	N/A	BLACK/YELLOW (+)	BLACK/RED (-)	Late model equipped with Transponder
Prowler	1997-00	YELLOW	DARK BLUE	RED/WHITE	N/A	BLACK/ORG	WHITE/TAN (+)	GRAY/L BLUE	LT. GREEN/BLACK (-)	BLACK/YELLOW (+)	N/A	
Sundance	1993-94	YELLOW	DARK BLUE	BLACK/ORG	N/A	BLACK/WHT	WHITE/TAN (+)	BLACK/GRAY	N/A	BLACK/YELLOW (+)	BLACK/RED (-)	
PONTIAC												
Bonneville	2000-02	YELLOW	PINK	WHITE	N/A	PK3	ORANGE	WHITE	L-Green	BRW/WHIT	BLACK (-)	
Bonneville	1992-99	YELLOW	PINK	ORANGE	N/A	BROWN	L BLUE (+) *	WHITE	L-Green	BROWN (+)	BLACK (-)	Equipped w/ VATS. *In 1992-95 Brake wire is White
Firebird	1998-02	YELLOW	PINK	ORANGE	N/A	BROWN	L BLUE (+)	WHITE	N/A	BROWN (+)	BLACK (-)	Equipped w/ VATS
Firebird	1987-97	YELLOW	PINK	ORANGE	N/A	BROWN	L BLUE (+)	WHITE	N/A	BROWN (+)	BLACK (-)	
Grand Am	1999-02	YELLOW	PINK	DK-GREEN	NA	ORANGE	WHITE (+)	WHITE	N/A	BROWN (+)	BLACK (-)	Equipped with passlock II
Grand Prix	1997-02	YELLOW	PINK	WHITE	N/A	ORANGE	WHITE (+)	WHITE	ORANGE/BLACK (-)	BROWN (+)	BLACK (-)	Equipped with Passkey III
Grand Prix	1988-96	YELLOW	PINK	PURPLE	N/A	ORANGE	WHITE	WHITE	N/A	BROWN (+)	BLACK (-)	
Montana	1998-02	YELLOW	PINK	WHITE	N/A	ORANGE	WHITE (+)	WHITE	GREEN/BLACK (-)	BROWN (+)	BLACK (-)	Equipped with Transponder
Sunbird	1993-94	YELLOW	PINK	ORANGE	N/A	BROWN	WHITE	WHITE	N/A	BROWN (+)	BLACK (-)	
Sunbird	1987-89	YELLOW	PINK	ORANGE	N/A	BROWN	WHITE	WHITE	N/A	BROWN (+)	BLACK (-)	
Sunfire	2000-02	YELLOW	PINK	N/A	N/A	ORANGE	WHITE	WHITE	DISARM WHEN START	BROWN (+)	BLACK (-)	Equipped with passlock II
Sunfire	1995-99	YELLOW	PINK	WHITE	N/A	ORANGE	WHITE	WHITE	N/A	BROWN (+)	BLACK (-)	Equipped with Passlock
Transport	1997-98	YELLOW	PINK	WHITE	N/A	ORANGE	WHITE (+)	WHITE	GREEN/BLACK (-)	BROWN (+)	BLACK (-)	
Transport	1990-96	YELLOW	PINK	WHT or ORNG	N/A	BROWN or Orange	WHITE (+)	WHT OR PPL	N/A	BROWN (+)	BLACK (-)	
SATURN												

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Make/model	Year	START	IGN 1	IGN 2	IGN 3/THEFT	ACC	BRAKE LIGHTS	TACH	ALARM DISARM	PARKING LIGHTS	HORN	NOTE
SC1/SC2	1993-01	YELLOW	PINK	ORANGE	N/A	BROWN	L BLUE (+)	WHITE	N/A	BROWN (+)	BLACK (-)	Late model equipped with Passkey III
SL / SL1 / SL2	1996-01	YELLOW	PINK	ORANGE	N/A	BROWN	L BLUE (+)	WHITE	N/A	BROWN (+)	BLACK (-)	Late model equipped with Passkey III
SL / SL1 / SL2	1992-95	YELLOW	PINK	ORANGE	N/A	BROWN	L BLUE (+)	WHITE	N/A	BROWN (+)	BLACK (-)	
SW1 / SW2	1996-99	YELLOW	PINK	ORANGE	N/A	BROWN	L BLUE (+)	WHITE	N/A	BROWN (+)	BLACK (-)	
SW1 / SW2	1993-95	YELLOW	PINK	ORANGE	N/A	BROWN	L BLUE (+)	WHITE	N/A	BROWN (+)	BLACK (-)	
SUBARU												
Forrester	1998-02	WHITE/BLK	YELLOW	GRN/ORG	N/A	GREEN	WHITE/BLACK	BLUE	N/A	PURPLE	GREEN/RED (-)	
Impreza	1998-01	BLACK/WHT	BLUE	N/A	N/A	BLACK/BLUE	WHITE/BLACK	BLUE	N/A	ORANGE (+)		
Impreza	1993-98	BLUE/RED	RED	N/A	N/A	RED/YEL	WHITE/BLACK	BLUE	N/A	BLACK/YELLOW (+)	N/A	
Impreza	2002	BLK/YEL	BLK	N/A	N/A	BLK/BLU	WHT/BLK			PURPLE	N/A	
Justy	1987-94	BLK/YEL	BLK/WHITE	N/A	N/A	BLUE	GREEN/BLACK (+)	YELLOW/BLUE	N/A	RED/YELLOW	GREEN/WHITE	
Legacy / Outback	1999-00	BLK/YEL	BLACK	N/A	N/A	BLACK/BLUE	WHITE/BLACK	BLUE		ORANGE	RED/GREEN (-)	Factory alarm disarm with fac transmitter
Legacy	1990-98	BLUE/RED	RED	RED/YEL	N/A	N/A	WHITE/BLACK (+)	BLACK/BLUE	N/A	RED (+)	RED/GREEN (-)	
Legacy	2000-02	WHITE/BLK	GREEN	N/A	N/A	YELLOW	BLK/BLUE	YEL/GRN	remote	ORANGE (+)	RED/GREEN (-)	
Loyale	1990-94	BLK/WHITE	BLACK	N/A	N/A	BLUE	GREEN/BLACK (+)	YELLOW	N/A	RED/BLACK	GREEN/BLACK	
SVX	1992-97	BLK/WHITE	RED	RED/YEL	N/A	RED/YEL	WHITE/GREEN (+)	YELLOW	N/A	RED	GREEN/BLACK	
SUZUKI												
Esteem	1998-02	WHT/GRN	BLK/BLUE	YEL/BLACK	N/A	BLK/BLU	BLUE/YEL	BROWN	remote	GREEN	BLU/BLK	
Grand Vitara	1999-02	BLACK/YEL	BLACK/WHT	N/A	N/A	YELLOW/BLK	GREEN/WHITE (+)	YELLOW/GRN	N/A	RED/YELLOW (+)	N/A	
Samurai	1986-95	BLACK/RED	BLK/BLUE	N/A	N/A	BLUE	GREEN/WHITE (+)	BROWN	N/A	RED/YELLOW (+)	BLUE/GREEN	
Sidekick	1996-98	BLACK/RED	BLK/BLUE	YEL/BLACK	N/A	BLUE	GREEN/WHITE (+)	BRN/WHITE	N/A	RED/YELLOW (+)	BLUE/GREEN	
Swift	1999-00	RED/YEL	BLUE/BLACK	RED/GREEN	N/A	BLUE/RED	GREEN/WHITE	BROWN	N/A	RED/YELLOW (+)	BLKor BLUE/BLK	
Swift	1989-98	BLK/YEL	BLK/BLUE	YEL/BLACK	N/A	BLUE	GREEN/WHITE	BROWN	N/A	RED/YELLOW	BLUE/GREEN	
TOYOTA												
4 Runner	1999-02	GREEN/BLK	BLACK/RED	BLACK/YEL	N/A	BLUE/RED	GREEN/WHITE (+)	BLACK	N/A	RED/GREEN (+)	GREEN/RED (-)	Equipped with Transponder
4 Runner	1990-98	BLACK	BLACK/RED	BLACK/YEL	N/A	BLUE/RED	GREEN/WHITE (+)	BLACK	N/A	GREEN (+)	GREEN/RED (-)	
Avalon	2000-02	BLK/WHITE	WHT/RED	BLK/ORG	N/A	WHT/GRN	RED/GRN	BLK/YELLOW	unlcok	GREEN (+)	GRN/BLACK (-)	
Avalon	1998-00	RED	BLACK/YEL	BLACK	N/A	BLUE	GREEN/WHITE (+)	GREEN	BLUE/SILVER	GREEN (+)	N/A	May Be Equipped with Transponder
Avalon	1995-97	RED	BLACK/ORG	BLACK/YEL	N/A	PINK/BLUE	GREEN/WHITE (+)	BLACK	BLUE (-)	GREEN (+)	GRN/BLACK (-)	
Camry	1997-01	RED	BLACK/RED	BLACK/YEL	N/A	BLUE/RED	GREEN/WHITE (+)	BLACK/ORG	RED/GREEN (-)	GREEN/BLACK (+)	GRN/BLACK (-)	
Camry	1987-96	BLK/WHITE	BLACK/ORG	BLACK/YEL	N/A	PINK/BLUE	GREEN/WHITE (+)	BLACK	N/A	GREEN (+)	GRN/BLACK (-)	
Camry	2002	BLK/WHITE	BLK/RED	BLACK/YEL	N/A	BLU/RED	GREEN/WHITE (+)		unlock	GREEN (+)	GRN/BLACK (-)	
Celica	2000-02	BLK/WHITE	BLACK/ORG	BLUE/RED	N/A	GRAY	GREEN/WHITE (+)	BRWN/WHT	unlock	LT. GREEN (-)	BLU/BLK	
Celica	1996-00	BLACK	BLUE/RED	GRAY	N/A	GRAY	GREEN/WHITE	BRN OR GRY				
Celica	1990-95	BLK/WHITE	BLUE/RED	GRAY	N/A	GRAY	GREEN/WHITE	BROWN				
Celica	1986-89	BLK/WHITE	BLACK/ORG	BLUE/RED	N/A	GRAY	GREEN/WHITE (+)	GRAY	N/A	GREEN (+)	GREEN (-)	
Corolla	1998-02	RED	BLK/WHT	BLACK/YEL	N/A	BLUE/RED	GREEN/WHITE (+)	YEL/GRN	unlock	GREEN (+)	GREEN/RED (-)	
Corolla	1987-97	BLK/WHITE	BLACK/ORG	BLACK/YEL	N/A	BLUE/RED	GREEN/WHITE (+)	BLACK	BLUE/RED (-)	GREEN (+)	GREEN/RED (-)	
Echo	2000-01	BLACK	BLACK/RED	BLACK/YEL	N/A	WHITE/BLUE	GREEN/WHITE (+)	GREEN/RED	BLUE/YELLOW	GREEN (+)	WHITE/RED (-)	NEED RELAY FOR STARTER INTERUPT
Land Cruiser	1999-02	BLK/WHT	BLUE/BLK	BLK/RED	N/A	BLACK	GREEN/WHITE (+)	BLACK	N/A	GREEN (+)	GREEN/ORG (-)	
Land Cruiser	1991-97	BLK/WHT	Blk/Red or Blk/GRN	BLACK/YEL	N/A	BLUE/RED	GREEN/WHITE (+)	BLACK	N/A	GREEN (+)	GREEN/RED (-)	
Land Cruiser	1998	BLK/WHT	BLK/BLUE	BLK/RED	N/A	BLACK	GREEN/WHITE (+)	BLACK/WHITE	BLUE/YELLOW (-)	GREEN (+)	N/A	
Most models		BLK/WHITE	BLACK/ORG	BLACK/YEL		BLUE/RED	GREEN/WHITE (+)	BLACK		GREEN(+)	GRN/BLACK (-)	
MR2	1994-95	RED	BLK/YEL	BLK/ORG	N/A	BLUE/RED	GREEN/WHITE (+)	BLACK/WHITE	unlock	GREEN (+)	GRN/BLACK (-)	
MR2 Spyder	2000-02	RED	BLK/YEL	RED/WHITE	N/A	PINK/BLUE	GREEN/WHITE (+)	WHITE		GREEN (+)	WHITE/RED	
Paseo	1996-98	BLACK	BLACK/RED	BLUE/RED	N/A	BLACK/YEL	GREEN/WHITE (+)	BLACK/BLUE	WHITE/BLUE (-)	GREEN (+)	GREEN/YEL(-)	
Paseo	1995	BLK/WHITE	BLK/RED	BLK/YEL	N/A	BLU/RED	GREEN/WHITE (+)	BLACK	WHITE/BLUE (-)	GREEN (+)	GREEN/YEL(-)	
Pick-up	1989-95	BLACK	BLACK/RED	BLACK/YEL	N/A	BLUE/RED	GREEN/WHITE (+)	BLACK	N/A	GREEN (+)	GREEN/RED (-)	
Previa	1991-97	BLK/WHT	BLACK/RED	BLACK/YEL	N/A	BLUE/RED	GREEN/WHITE (+)	BLACK	BLU or BLU/WHT (-)	GRN/WHITE(+)	GREEN/RED (-)	
RAV 4	2001-02	RED	BLACK	BLK/YEL**	N/A	BLUE/RED	GREEN/WHT	BLACK		GREEN (+)	GREEN/RED (-)	Equipped with Transponder
RAV 4	1996-01	BLK/WHT	BLACK/RED	BLACK *	N/A	BLUE/RED	GREEN/WHITE (+)	BLACK	BLUE (-)	GREEN (+)	GREEN/RED (-)	* 1998-2001 IGN 2 is BLACK / YELLOW
Sienna	1998-02	RED	BLACK/RED	BLACK/YEL	N/A	BLUE	GREEN/WHITE (+)	ORANGE	BLUE (-)	GREEN (+)	GREEN/BLK (-)	
Sienna	1998-02	RED	BLACK/RED	BLACK/YEL	N/A	BLUE	GREEN/WHITE (+)	ORANGE	BLUE (-)	GREEN (+)	GRN/BLACK (-)	
Supra	1994-98	BLK/WHITE	BLACK/ORG	BLACK/YEL	N/A	PINK/BLUE	GREEN/WHITE (+)	BLACK	GREEN (-)	GREEN (+)	BLUE/RED (-)	
T100 Pick-up	1996-99	BLACK/ORG	BLACK/RED	BLACK/YEL	N/A	BLUE/RED	GREEN/WHITE (+)	ORANGE	BLUE (-)	GREEN (+)	GREEN/BLK (-)	
T100 Pick-up	1994-95	BLK/YEL*	BLACK/RED	BLK/YEL**	N/A	BLUE/RED	GREEN/WHITE (+)	BLACK	N/A	GREEN (+)	GREEN/RED (-)	*94 wire is BLACK - **93 wire is BRN/WHT
Tacoma	1995-02	BLACK	BLACK/RED	BLACK/YEL	N/A	BLUE/RED*	GREEN/WHITE (+)	BLACK	BLUE (-)	GREEN (+)	GREEN/RED (-)	*95 wire is RED/BLUE
Tercel	1998-99	BLACK	BLUE/RED	BLACK/WHT	N/A	BLACK/YEL	GREEN/WHITE (+)	BLACK/BLUE	RED/WHITE (-)	GREEN (-)	GREEN/YEL(-)	
Tercel	1987-97	BLACK	BLK/WHITE	BLACK/YEL	N/A	BLACK/YEL	RED/WHITE (+)	BLACK/BLUE	WHITE/BLUE (-)	GREEN (+)	GREEN/YEL(-)	
Tundra	2000-02	GREEN/BLK	BLACK/RED	BLACK/YEL	N/A	BLUE/RED	GREEN/WHITE (+)	BLACK	N/A	RED/GREEN (+)	GREEN/RED (-)	
VOLKSWAGEN												
Beetle	1998-02	RED/BLACK	BLACK	BROWN/RED	N/A	BLACK/RED	RED/BLACK (+)	GREEN/ORNG	WHITE/BLUE (-)	GRAY/VIOLET	BLUE/YELLOW	equipped with transponder key
Cabriolet	1995-02	RED/BLACK	BLACK	N/A	N/A	BLACK/YEL	BLACK/RED (+)	BLACK/RED	UNLOCK WIRES (-)	GRAY/BLACK	N/A	
Corrado	1994-95	BLACK/YEL	BLACK	N/A	N/A	BLACK/YEL	BLACK/RED (+)	GREEN/BLACK	N/A	GRAY/GREEN (+)	BRN/BLUE (-)	
Corrado	1990-93	RED/BLACK	BLACK	BLACK/YEL	N/A	BROWN/RED	BLACK/RED (+)	GREEN/BLACK	N/A	GRAY/GREEN (+)	BRN/BLUE (-)	
Golf & GTI	1999-02	RED/BLUE	BLACK	BROWN/RED	N/A	BLACK/RED	RED/BLACK (+)	GREEN/YEL	UNLOCK WIRES (-)	GRAY/TAN GRAY/YEL	BLACK/YEL (-)	SPLIT PARKING LIGHT, USE DIODE
Golf &GTI	1994-98	RED/BLACK	BLACK	N/A	N/A	BLACK/YEL	RED/BLACK (+)	BLACK/RED	N/A	GRAY/BLK GRAY/RED	BROWN/BLUE(-)	SPLIT PARKING LIGHT, USE DIODE
JETTA	1999-02	RED/BLUE	BLACK	BROWN/RED	N/A	BLACK/RED	RED/BLACK (+)	GREEN/YEL	UNLOCK WIRES (-)	GRAY/TAN GRAY/YEL	BLACK/YEL (-)	SPLIT PARKING LIGHT, USE DIODE
Eurovan	1998-00	RED/BLK	BLACK	N/A	N/A	YELLOW	RED/BLK	GREEN	N/A	GRAY/BLACK	BROWN/BLK (-)	
Eurovan	1993-97	BLACK/YEL	BLACK	N/A	N/A	BLK/YELLOW	BLACK/RED (+)	GREEN/RED	N/A	GRAY/BLACK	BROWN/BLUE (-)	
PASSAT	1998-00	RED/BLACK	BLACK	N/A	N/A	WHITE/YEL	RED/BLUE (+)	GREEN/BLUE	UNLOCK WIRES (-)	GREEN/RED (+)		Equipped with Transponder
PASSAT	2001-02	RED/BLACK	BLACK	BLK/YEL	N/A - Transponder	YEL/BLU	RED/BLK	GREEN/BLUE	UNLOCK WIRES (-)	GRAY/BLK	BROWN/YEL	Equipped with Transponder